"AN OPEN CLINICAL TRIAL OF POLY HERBAL SIDDHA DRUGS "*VENPOOSANI LEGIYAM*" (INTERNAL MEDICINE) AND "*ULUNTHU THYLAM*" (EXTERNAL MEDICINE) IN THE TREATMENT OF *VEN NEER NOI* (DHAT SYNDROME) WITH AND WITHOUT PSYCHO-EDUCATION THERAPY".

The dissertation Submitted by

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BONAFIDE CERTIFICATE

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DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled “entitled Clinical Study of poly herbal Siddha drug “*Venpoosani Legiyam*” (internal medicine) and “*Ulunthu Thylam*” (external medicine) in the treatment of “*Veneer Noi*” (Dhat Syndrome) is a bonafide and genuine research work carried out by me under the guidance of **Dr. N.J. Muthukumar M.D (S),** Head of the Department**,** Department of **Sirappu Maruthuvam**, National Institute of Siddha, Chennai -47, and the dissertation has not formed the basis for the award of any Degree, Diploma, Fellowship or other similar title.

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INTRODUCTION

The *Siddha* System of Medicine is the ancient traditional system of medicine generated from Dravidian culture and it is believed to be one of the oldest medical systems in the known universe. It is a traditional healthcare science which is significant to Indian subcontinent especially Southern region. This science not only deals with medication and treatment but also it covers all the aspects of the social wellbeing and concreted in the fundamental basics of Nature and Spirituality. The word *Siddha* comes from the word *Siddhi* which means an object to attain heavenly bliss. The system has flourished well in India for many centuries. Although this system has declined in later years, in the wake of changing mode of life and Modern Medicine, it continues to sustain its influence on the masses because of its incomparable intrinsic merits. *Siddha* medicine can combat all types of diseases, especially the chronic diseases, which baffles and eludes even the modern sophisticated medicine. There were 18 important *Siddhars* in olden days and they developed this system of medicine for attain the holistic health of people. Hence, it is called *Siddha* system of Medicine.

Siddhars were of the concept that a healthy soul can only be developed through a healthy body. So they developed methods and medication that are believed to strengthen their physical body and thereby their souls.

Siddhars have listed the diseases of mankind as 4448 based on the *Mukkutram* i.e., *Vali, Azhal, Iyyam*. Among the 4448 diseases, the Psychological related diseases/problems are classified into 18 varieties by *Siddhar Agasthiyar*. The other imperative *Siddhars Yugi Munivar* and *Theraiyar* also describe the psychiatric diseases in their texts.

VENNEER NOI.

This disease is described in the texts of "*Siddha Maruthuvam Pothu*" by K. N. Kuppusami Muthaliyar and also "*Noi Naadal Noi Muthal Naadal Thiraddu* - Part - 2" by Dr. M. Shanmugavelu.

It is a condition that, debilitating disorder of *Sukkila Thadhu* (seventh physical constituent), within the seven *Udal Thadhus* (Physical Constitutes) of the human body. Deteriorating of the *Sukkila Thadhu* will leads to losses its natural luminous, colour, weight & heaviness; finally it is passed either with urine or before and after micturition.

It may caused by having sexual contacts from very young age, excess lust on money and sex, anxiety and by hereditary.[1,2]

The disease affects the sperm, ovum and accessory sexual organs (Prostate, bartholin and vaginal glands) are deteriorated. It causes structural and functional damages of the human being. The Common symptoms are weakness, dryness of tongue, tremor, headache, bad dreams, loss of interests in food, pain and tiredness shoulder and other organs. Tightened chest, blindness, hoarseness of voice, cough, dyspnoea, disturbed sleep, perspiration and constipation are other symptoms of this disease.[3]

According to the modern science the ***Venneer Noi*** could be correlated with **Dhat Syndrome**.

Dhat syndrome is a condition of strong sub-cultural beliefs associated with loss of semen found in the cultures of the eastern world and the resultant psychological symptoms has given the name[4,5]. *Dhat* syndrome where *Dhat* is the Sanskrit word from *Dhātu dosha* that means essence of semen[8]. *Dhātu* is a meaning of ‘metal’, and also ‘elixir’ or ‘constituent part of the body’. *Dhat* is thought to be a culture-bound syndrome similar to *jiryan* (South-East Asia), *prameha* (Sri Lanka), and *shen-k'uei* (China)[9].

The condition has no known organic aetiology. There is a belief that one drop of semen is equal to thousand drops of blood and thus, its loss is calamitous[9]. In the eastern cultural spirituality, semen is described as a "vital fluid". The discharge of this “vital fluid”, through nocturnal emission, masturbation, urine, or excess extra marital sexual contacts is associated with marked feelings of anxiety and dysphoria (It can also refer to a state of not being comfortable in one's current body)[11,12].

DSM IV mentioned that *Dhat* a folk diagnostic term used in India to refer to severe anxiety and hypochondriacal concerns associated with the discharge of semen, whitish discoloration of the urine, and feelings of weakness and exhaustion[5].

According to ICD 10, mixed disorders of behaviour, belief and emotions which are of vague aetiology and nosological status and which occur with particular frequency in certain cultures. It is undue concern about the debilitating effects of the passage of semen[4].

The firm belief is that due to 'unnatural' loss of semen described it as being characterized by vague psychosomatic symptoms of weakness, emaciation, frailty, premature ageing, anxiety, poor appetite, guilt and sexual dysfunction, loss of masculine prowess and infertility. And often the patient describes the loss of a whitish fluid while passing urine. Commonly they expose that the marked feelings of guilt associated with what the patient assumes is "excessive" masturbation are noted.[6]

It is true culture bound sex neurosis. That has been frequently reported in the natives of Indian Sub-continent for the last many decades. The patients usually report experience mixture of physical, psychological, genital as well as sexual symptoms such as fatigue, weakness, loss of appetite, anxiety, guilty and etc. At times, patients also report sexual dysfunction which they attribute to passing of semen (Dhat) in urine as a direct consequence of his excessive indulgence in the masturbation, nocturnal emission or other sexual activity. Semen loss and consequent anxiety (interchangeable terms used for Dhat Syndrome) are not confined only to India some studies have been reported from Sri Lanka, Pakistan and other parts of Sub-continent as well.[6,9,11]

Dhat Syndrome is a commonest condition in the males from the adolescent to middle aged group. Even though it is universally observed syndrome, but it is obviously noted in high occurrence in Indian subcontinent. Based on the clinical experienced at the Out Patients Department (OPD) of National Institute of Siddha, it is observed that, significant number of male patients are coming with Dhat syndrome. According to the International Journal of Epidemiology 2014; 43: 2: 365 - 406 (Published: 22 December 2013) the global prevalence rate of Dhat syndrome is 11.7% in India and Pakistan it is 30%.[12] These data inspires to carry out this study for the M.D (Siddha) Dissertation.

For this study, the poly herbal formulation of "*Venpoosani Legiyam*" as internal drug (*Siddha Vaidhiya Thirattu*) and "*Ulunthu Thylam*" (The Siddha Formulary of India – Part –I) for external application (massage the penis and scalp) to evaluate their efficacy in treating "*Venneer Noi*" (Dhat Syndrome).

In recent research, it has been found that, *Venpoosani Legiyam* improves overall health. As it is a tonic and gives strength to every body organ. It increases libido, and gives relief in variety of disorders. It is digestive, carminative, restorative, expectorant, and sedative. It is commonly used for general health tonic, weakness, spermatorrhoea and body heat condition.

AIM AND OBJECTIVES

PRIMARY OBJECTIVE:

To evaluate the efficacy of Poly herbal Siddha Drugs "*VENPOOSANI LEGIYAM*" (Internal medicine) and "*ULUNTHU THYLAM*" (External medicine) in the treatment of *VENNEER NOI* (DHAT SYNDROME) with and without psycho-education therapy.

SECONDARY OBJECTIVE:

- To make a detailed clinical evaluation of the disease by careful examination of Aetiology, Symptoms, Complication, Treatment and Prognosis
- To study the Siddha and Modern aspects of *Venneer Noi* (Dhat Syndrome)
- To study the Siddha basic principles towards the efficacy of trial medicines.
- To carry out the Biochemical analysis of trial medicine (internal medicine) of *Venpoosani Legiyam*
- To perform the physiochemical and phytochemical analysis of the trial medicine (internal medicine) of *Venpoosani Legiyam*
- To accomplish the Aflotoxin analysis and microbial upload studies for the trial medicine (internal medicine) of *Venpoosani Legiyam*

REVIEW OF LITERATURE

SIDDHA ASPECT OF *VENNEER NOI*

VENNEER NOI

Other names- *Sukkila Neer*, *Thavala Neer* and *Thavala Mekam*

Definition:

It is a condition that, debilitating disorder of *Sukkila Dhātu* (seventh physical constituent), within the seven *Udal Dhātus* (Physical Constitutes) of the human body. Deteriorating of the *Sukkila Dhātu* caused the losses its natural luminous, colour, weight and heaviness, then it is passing with urine and before or after maturation.[1,2]

Root cause of the disease:

It may caused by having sexual contacts from very young age, excess lust on money and sex, anxiety, and by hereditary from father or mother or both.[1,2]

Premonitory Sign and Symptoms

There are frequent micturition, nocturnal emission, gradual emaciation and tremor.

Signs and Symptoms

Initially its shows the above mentioned premonitory signs and symptoms, then the frequent micturition become a thick thread like urination, due to this the thought that his vital energy is passing with urine and this may caused the following psychological problems like an anxious, depression, loneliness, shyness (shame) and embarrassment. And also patient suffers with sadness, emaciation, insomnia, nocturnal emission (semen release during dreams in the sleep at night) and fatigue of legs and hands. Further, physically patient having indigestion, nausea, vomiting, diarrhea or constipation tremor in both legs & hands and numbness of limbs. If not given the proper treatment at the time the condition going to worsen and increased sadness and depression finally patient may attempt suicide.

Siddha medical texts mentioned the *Venneer noi / Thavalaneer noi / Sukkilaneer noi* is could be compare with the *Dhat* syndrome. Siddha medicine is mentioned, various psychological and physiological functions of the body are attributed to the combination of seven elements *(Saptha thathukal)*: first is *Chaaram* (plasma) responsible for growth, development and nourishment; second is *Cheneer* (blood) responsible for nourishing muscles, imparting colour and improving intellect; the third is *Oon* (muscle) responsible for shape of the body; fourth is *Kozhuppu* (fatty tissue) responsible for oil balance and lubricating joints; fifth is *Enbu* (bone) responsible for body structure and posture and movement; sixth is *Majjai* (bone marrow) responsible for formation of blood corpuscles; and the last is *Sukkilam* (semen) responsible for reproduction[1,2].

MEKA NEER

The texts of "*Noi Naadal Noi Muthal Naadal Thiraddu*" and "Siddha Maruthuvam Pothu" mentioned the "*Ven Neer Noi*" under the "*Meka Neer*" or "*Neerinai Perukkal Noikal*" (Poly uric conditions). The *Meka Neer* is a condition that unnaturally excessive urination with loosen the strength of seven body constituents (*Saptha Thathukal*).[2]

Root causes for the *Meka Neer*

1 "Nfhijau fyt‰ Nghij
nfhOjjk d‰iwrr‰ Nghij
ghJtha neaAk ghYk
gu‰Tl Z zg uhf‰y
Nrhjghz LUt k‰ff
Rff‰y g‰uNk fejhd
XJe u‰o‰T Nru
C znld tw‰eJ nfhsNs"

- Agathiar 2000-

2. "ru‰ahf Nkfjjh yghd thA
jhdGiffF NkNyw‰f fghyr #lhk
ngu‰jhd Nkfjjh yjj‰ nteJ
Nghkggh jirnteJ ujjk tww‰g
gu‰thf‰j jrthAthy kejq nfhzL
ngUejd‰ kygejk cjhd thA
tu‰thf‰j Njfnkyhk t‰le uhNy
nkaao‰ej Nkfnkdw j‰Ug jhrNr"

- Siddha Maruthvuvam-

Excessive intake of sweet and oily foods, farthest sexual acts, easily get sadness, constantly sit and lethargies are stimulates to amplify the important three *Vaayukal (Mel Nokku, Keezh Nokku* and *Paravu Kaal*). These augmented *Vaayukkal* intensify the *Moolaatharam* and this may inspire the *Moola Kanal* due to this reason *Ven Neen Noi* may caused.[2]

Meka Neer could be divided in to twenty types. Based on the *Mukktram* (Tri Humour) ;

- Vali Kutram - 04
- Azhal Kutram - 06
- Iya Kutram - 10

Under the *Iya Noi,* the following 10 types of Meka Neer are listed in the Siddha Texts.

"Mwhd r‰NylLkryk gjJ jdid
mudnrhyy Mjjhsjhd NflFk NghJ
thwhd thrhNkfe njs‰Nkf
%isA UfF NkfjNjh bseu Nkfk
J}whd RuhRff‰y NkfqfO euNkfQ
Rwwkhk g‰urnkhL rhu Nkfk
Njwhd ,iwrr‰ah Nkfnkhdw
nrgg‰dhu r‰NylLkjj‰d ryjijjjhNd".

- Noi Naadal Noi Muthal Naadal Thiraddu -

1. *Vaasa Neer*
2. *Theli Neer*
3. *Moolai Urukku Neer*
4. *Ela Neer*
5. *Kal Neer*
6. ***Ven Neer***
7. *Kazhu Neer*
8. *Then Neer*
9. *Uppu Neer*
10. *Eraichi Neer*

Vennneer Noi

“vdwNjhu Nkfejh dpwqFk NghJ
Vwwkhq Rffpyjjp dpwNk NghYe
jdwNjhu jhspaplr rhW NghYe
jupjJNk nkO$ueJ rpWfp tOq
fdwNjh upijffharrpw flb Nghyf
fdkhd <uyNghw NwhaeJ NghFk
KdwNjhu fzlryk %dwh khzby
Kawrpahf nfhyYQRfy Nkfe jhNd”

- Yugi Muni Vaithya Chinthamani-

NjhajJW eugjjpdpy
NjhaRffpy eu Nfs
VAQrpW epiwahk tpeJ
Ntdyhqfd epwKk
NjhAk girnkO fdwpAQ
nrhwWhio eutbthk
MAkb d/jpuyhk
mtuf fhzlJ %dNw”.

- Noi Naadal Noi Muthal Naadal Thiraddu -

Based on these stanza; urine become thick and reduced amount is excrete, it look like colour and heaviness of semen, it show like sticky wax and juice *Thaazhai vizhuthu* (areal root of *Pandanas odoratissimus*). If boiled it become solidify and appear like liver.

Seats of the Tri Humours / Siddha patho-physiology

Due to internal and external causes of the living body, the *Azhal* humour raised and debilitates the *Iyam* humour. This leads to deteriorate the heaviness and colour of the semen and its pass with urine. If excessively loss of semen (*Sukkila Dhadhu)* it affects and gradually weaken all other six *Udal Thadhukal.*

Pulse (Naadi) variation

1. “nghUshd thjjjpy gpjjQ NrueJ
nghUjJ Fzqf S\zthA rfjp
nrupahik Gspjjggk nghUky eupw
rptgGkyk gpbjjYUj jhJ ellk
fUthd Njfkjp Yisrry Nrhkgy
iffhy jwpgGehf frfF kddk
gupthd Czfiwjy Urpnghjy
gyNehAk tUjjpitfFk ghqF jhNd”

2. “rpwgghd gpjjjjpy thj ehb
NrupYW jhJell Kjpu gil
ciwgghfr nrupahik FdkQ #iy
cwwRuq fpuhzptapw wpiurry kejk
miwgghd Xqfhu Gweuf Nfhit
Mahrq fpuffnkhL kaff %urir
KiwffhaT tpltff %y thaT
Kulhd NehagyT KLFk gzNg”

3. “tifahd gpjjjjpy thaT $b
trkhdhy typFdkQ #iy thaT
gifahd thejptpffy mUt UgGg
gapjjpaqfs nrupahik Gspjj Vggk
jifahj <uytyp neQR NehTe
jiyfpWfF krjpahe jhJellk
Jifahd %ythaTw whY\zQ Nrhif
JlueJtUk gygpzfFe njhdpgG jhNd”

- Sathaga Naadi -

It’s meant that, Mixed *Vali* with *Azhal*, *Azhal* with *Vali* and excess *Azhal* with *Vali* caused the semen loss.

Clinical Features

1. Hotness
2. Nausea and Vomiting
3. Indigestion
4. Belching
5. Bloating abdomen
6. Colour change of urine
7. Constipation
8. Semen loss
9. Body ache and pain
10. Tiredness
11. Bitter taste in tongue
12. Numbness of limbs
13. Loss of appetite
14. Tastelessness
15. Gastric ulcer
16. Diarrhoea
17. Sinusitis
18. Execution
19. Fainting
20. Haemorrhoids
21. Madness
22. Giddiness
23. Chest pain
24. Weakness of the body
25. Anaemia

Treatment

Starts with purgative medicine for neutralised the amplified *Azhal* humour. Then give the medicines to improve the diminished *Iyam* become normalised. Cooling and nutritive medicine are select for the treatment.

Ilakam (lekiyam) based medicines and medicines prepared with gold, silver, coral and pearl are good for treat this condition.[1]

AYURVEDA

Ayurvedic literature describing semen as a vital constituent of the human body dates back to 1500 BC. The disorders of '*Dhatus*' have been elucidated in the Charak Samhita, which describes a disorder called '*Shukrameha*' in which there is a passage of semen in the urine. Similar conditions have been described under various names from China (*Shen K'uei*), Sri Lanka (*Prameha*) other parts of South East Asia (*Jiryan*) [8] and Siddha medicine *Venneer Noi*. Some physicians believes *Dhat* syndrome to be either a culture-bound presentation of clinical depression, as a somatized set of symptoms, or a result of Western doctors misinterpretation of patients descriptions of their condition.

MODERN MEDICAL ASPECT OF VENNEER NOI (DHAT SYNDROME)

***Dhat* Syndrome** is characterized primarily with complaints of loss of semen through urine, nocturnal emission or masturbation, accompanied by vague symptoms of weakness, easy fatigability, palpitation, sleeplessness, low mood, guilt and anxiety. The condition has no organic aetiology. It may sometimes be associated with sexual dysfunction (impotence and premature ejaculation) and psychosocial disorders (depression, anxiety neurosis or phobia).[9]

Dr. S. M. Yasir Arafat mentioned on his study in the journal of 'Health Tips Ever' that, the patients who presented with symptoms of Dhat Syndrome were mostly young, recently married, belonging to average or low socioeconomic status (perhaps a student, laborer or farmer by occupation), from rural area and from family with conservative attitudes towards sex.[8]

Patients having *Dhat* syndrome can be further divided into five categories.

1. *Dhat* alone – complaint of passage of *Dhat* in urine
2. *Dhat* with multiple somatic symptoms
3. *Dhat* with asthenia (physical or mental exhaustion)
4. *Dhat* with co-morbid depression and anxiety
5. *Dhat* with sexual dysfunction.

Young males are most often affected, though similar symptoms have been reported in females with excessive vaginal discharge or leucorrhea, which is also considered a "vital fluid". [6]

Dhat syndrome is a true culture bound sex neurosis quite common in natives of the Indian subcontinent. Culture bound syndromes (CBS) were defined by Littlewood and Lipsedge as 'episodic and dramatic reactions specific to a particular community. In 1969, Yap invented the term CBS to delineate a rare and exotic group of disorders that cause little damage to humanity; however, they may consist of unpredictable and chaotic behaviour.[52,55,56]

Empirical and clinical findings are reported for south Asia, where *Dhat* is seen as a significant clinical problem, although it has described some historical and cultural contexts. For Western countries and Australia, the data are fewer.[38]

This may due to with industrialisation and urbanisation, the anxiety about semen loss in the West diminished, and the same is likely to happen in southern Asia as well. If we understand *Dhat* as a culture-bound syndrome, the historical evidence indicates that it was prevalent in Europe, USA and Australia in the 19th century. In those countries it might have disappeared in response to changes in social and economic factors, whereas it is still prevalent in southern Asia. It could believe that the universality of symptoms of anxiety (in this case secondary to feared or actual loss of semen) has to be acknowledged.[24]

It found that symptoms of semen-loss anxiety were reported from a range of cultures; found that in the West these symptoms were mainly reported during the 19th century. Although there are discrepancies in the data from modern-day India, and only descriptions exist of the symptoms in 18th- and 19th-century Western societies, it proves that *Dhat* syndrome is not culture-bound and it is certainly not an exclusive exotic neurosis of the Orient. Furthermore, *Dhat* and *Dhat* syndrome as described in research from the Indian subcontinent is not always a homogeneous entity, and although syndromes by definition are heterogeneous the symptoms described are more likely to be psychological or psychosomatic even though their attribution to *Dhat* may be culturally influenced.[23]

Prince & Tcheng-Laroche (1987) pleaded that culture-bound syndrome status should not be assigned on the basis of the geographic distribution of the illness, nor on the basis of a local 'label', notions of cause or epidemiological features. More importantly, they felt that the meaning of illness for both individuals and their culture should not be confused with syndrome descriptions or used as criteria for international classification.[39,40]

Beiser (1987) considers that some conditions will never fit into the illness discourse and must remain exotic or unclassifiable. We feel that it is possible to categorise these conditions, provided the emphasis is on pathology in its true bio-psychosocial context, allowing the diagnostic flexibility. Kleinman's caution of category fallacy became much more relevant in this context (Kleinman, 1980).[20]

Tseng (2001), cultures do influence psychopathology - through pathogenic, patho-selective, patho-plastic, patho-elaborating, patho-facilitating and patho-reactive effects - but we believe that the interaction between the individual and the culture is extremely complex. Even if the culture is patho-facilitatory or patho-reactive, the individual's disorder can be and will be influenced by other factors such as personality traits, peer and family support available to the individual and alternative explanations of the experience.[27]

Due to debilitate of ***sukkilam*** (semen), it excretes with urine before and after maturation with loss of its natural glow, colour and heaviness. This may caused by having sexual contacts in early adolescent age or obsessive thoughts related to possessions of asserts or depressive moods and lack of interest or may hereditary. Preliminary symptoms are; frequent maturation, tremor, excess night emission and emaciation of body. Clinical features are; recurrent thread likes maturation due to observed these by the patient he felt that he continuously losing his semen and owing to the psychological symptoms of , and get suffers with panic, depression, and having delusion for loss of semen. This may leads to anxiety, emaciation of body, insomnia, night emission, generalized tiredness, bashfulness and isolation. The physical symptoms are indigestion, nausea & vomiting, diarrhoea or constipation and tremor on limps. If it is not treat it may leads to suicide.

The "Dhat Syndrome Symptoms Checklist (DSSC)" standardised and classified the following clinical feature for the Dhat Syndrome (S.K. Srivastsa, Applied and Community Psychology - Trends and directions, Volume 2, edition 2005, page No. 596 to 600.);[55]

Physical

1. Generalized weakness
2. Backaches
3. Localized ache and pain
4. Ache and pain not localized
5. Weakness of nerves
6. Loss of hair
7. Fatigue
8. Abdominal distension
9. Constipation
10. Shrinkage penis
11. Excessive Salivation

Somatic

12. Restlessness
13. Excessive sweating
14. Blurred vision
15. Poor sleep
16. Singing of heart
17. Numbness in the limbs
18. Burning sensation of chest
19. Acidity
20. Dryness of mouth
21. Palpitation

Psychological

22. Fear
23. Guilty
24. Shyness
25. Embarrassment
26. Anxiety
27. Loss of confidence
28. Nervousness
29. Poor memory
30. Low mood
31. Suicidal thoughts
32. Not being oneself (depersonalization)

Sexual/ genital

33. Burning micturition
34. Penile discharge
35. Thinness of seminal fluid
36. Penile discharge before passing urine
37. Premature ejaculation
38. Penile discharge after passing urine

Desire

39. Lack of interest in sex
40. Decrease desire for sex

Malhotra and Wig called '*Dhat*' 'a sexual neurosis of the Orient'. In China, anxiety following semen loss (*Shen-K'uie*) has been associated with epidemics of *Koro,* which is another culture bound syndrome in which the individual holds the belief that his penis is shrinking into his body and disappearing.[39]

Tissot's paper in 18th century stating that even an adequate diet could waste away through seminal emission gained popularity amongst the emerging middle class and led Western Europe to an era of masturbating insanity.[49]

The International Classification of diseases ICD-10 classifies *Dhat* syndrome as both a neurotic disorder (code F48.8) and a culture specific disorder (Annexe 2) caused by 'undue concern about the debilitating effects of the passage of semen.' It is a commonly recognized clinical entity in India and South East Asia and is also widespread in Nepal, Sri Lanka, Bangladesh and Pakistan[3].

The amendments to DSM–IV in that it now offers an outline for cultural formulation in which multi-axial diagnostic assessments are supplemented by a systematic review of the individual's cultural background and the role of the cultural context in the expression and evaluation of symptoms and dysfunction, together with the effect that cultural differences might have on the relationship between the individual and the clinician. Cultural identity of the individual and cultural explanations of the individual's distress - as well as factors related to psychosocial environment, levels of functioning and the relationship between the individual and clinician - are important. If all these factors are taken into account and used seriously in diagnoses then the scope for culture-bound syndromes becomes even more limited, even though this category is retained in DSM–IV.[4]

Differential Diagnosis

1. Chyluria

Chyluria, also called chylous urine, is a medical condition involving the presence of chyle in the urine stream, which results in urine appearing milky white. The condition is usually classified as being either parasitic or non parasitic. It is a condition that is more prevalent among people of Africa and the Indian subcontinent. Chyluria appearance is irregular and intermittent. It may last several days, weeks or even months. There are several factors that trigger Chyluria recurrence.

2. Chlamydia infection

Chlamydia infection might also be related to it because of similar symptoms in case of infection of the urethra (urethritis), which is usually symptomatic, causing a white discharge from the penis with or without pain on urinating dysuria.

Treatment

Understanding of Dhat Syndrome by Modern Medicine fails to impress most patients. Wig suggested emphatic listening, a non-confrontational approach, reassurance and correction of erroneous beliefs, along with the use of placebo, anti-anxiety and antidepressant drugs, wherever required. Other group advocated psycho-education and culturally informed cognitive behavioral therapy. Good response was reported with anti-anxiety and antidepressant drugs as compared to psychotherapy. Depression symptoms of this syndrome showed effective response to selective serotonin reuptake inhibitors along with regular counseling.[47]

The available intervention studies suggest that the management of Dhat syndrome involves sex education, relaxation therapy and medications. Sex education primarily focuses on anatomy and physiology of sexual organs and their functioning with reference to masturbation, semen, nocturnal emissions. It also involves functioning with genitourinary system independent of gastrointestinal tract, etc. Relaxation therapy mainly consists of Jacobson's Progressive Muscular Relaxation Technique, which can be combined with biofeedback (so as to facilitate objective evidence and mastering of anxiety by the patient).[27]

The most appropriate treatment is Psycho-education and psychotherapy for treat the Dhat Syndrome. Further increased intake of liquids in diet and quality of nutritional foods should be concerned.[20]

Cognitive Behaviour Therapy is the mainstay of treatment. At other times counseling, anti-anxiety and antidepressant medications have been shown to be of use.[42]

Regular exercise, yoga, meditation and enough leisure activities are support to reduce the severity of the Dhat syndrome.

PROPERTIES OF TRIAL DRUGS

INTERNAL MEDICINE:

Venpoosani Legiyam

Ingredients

1. VenpoosanikaaiChaaru – (*Benincasa hispida*) - 5200 ml (4 padi)
2. ThaalaivizhuthuChaaru – (Pandanus odoratissimus) - 1300 ml (1 padi)
3. Thennam poo Chaaru – (*Cocos nucifera*) - 1300 ml (1 padi)
4. PazhaChaaru – (*Citrus limon*) - 1300 ml (1 padi)
5. PasuPaal (Milk) - 2600 ml (2 *padi*)
6. Sarkarai (Sugar) - (*Saccharum officinarum*) - 350 g (10 palam)
7. Seerakam - (*Cumiuscyminum*) - 35 g (1 *palam*)
8. Koththumalli - (*Coriandrumsativum*) - 35 g (1 *palam*)
9. Kostam - (*Costus speciosus*) - 35 g (1 *palam*)
10. Milaku - (*Piper nigram*) - 35 g (1 *palam*)
11. Maasikkaai - (*Quercus infectoriaolivier*) - 35 g (1 *palam*)
12. Elam - (*Elettaria cardamomum*) - 35 g (1 *palam*)
13. Saathikkai - (*Myristica fragranshoutt*) - 35 g (1 *palam*)
14. Saathipathiri - (*Myristica fragranshoutt*) - 35 g (1 *palam*)
15. Athimathuram - (Glycyrrhiza glabra) - 35 g (1 *palam*)
16. Thaalisam - (*Abiess pectabilis*) - 35 g (1 *palam*)
17. Nei (Ghee) - 650 ml (½ *padi*)
18. Thenn (Honey) - 325 ml (¼ padi)

Method of preparation

Dissolve the jaggery in the milk and mix the juices of 1 to 4 items then filter it and boil this mixture up to threadlike stage (*patham*) after that slowly add the powders of the balance items 7 to 16 and mix up well, later add the ghee and honey and blend it well. Then store it in clean container.

Dose	: 5g two times a day (Punnaikkai size)
Duration	: 48 days
Diet and Regiment (pathiyam)	: Tamarinds (*Puli*) and Smoke (*Pukai*)

UlunthuThylam (External Medicine)

Ingredients

1.	Ulunthu (*Vigna munga*)	- 1.400 lit
2.	Thanneer - (water)	- 5.600 lit
3.	Vellattuppaal - (goat milk)	- 1.4 lit
4.	Nalennai (*Sesamum indicum*) Seasamum	- 1.4 lit
5.	Punnaikkaaivitaiparuppu (*Calophyllum inophyllum*)	- 4 g
6.	Sathakuppai*(Anethum graveolens*)	- 4 g
7.	Perarathai (*Alpinia galangal*)	- 4 g
8.	Chukku (dried *Gingeber officinale*)	- 4 g
9.	Milaku (*Piper nigram*)	- 4 g
10.	Thippili (*Piper longum*)	- 4 g
11.	Vetpalaipattai (*Writhtia tincoria*)	- 4 g
12.	Athimathuram (*Glycerrhiza glabra*)	- 4 g
13.	Inthuppu (sodium chloride impure)	- 4 g
14.	Vasampu – (*Acorus calamus)*	- 4 g

Method of Preparation

Preparation of decoction by *Ulunthu* and Water well boiled till reduced in to 1.400 litters and filter it.

Finely powdered items of 5 to 14 and grind it to a paste with some quantity of *VelaattuPaal*. Mix this with the *VelaattuPaal* and make as decoction. Boil this to make as a *Thylam*and filter it, then keep in clean container.

Dosage	:	Quantity sufficient (Q.S.)
Duration	:	48 days
Method of Application	:	Apply externally and massage

Properties of Internal and External Medicines

1. <u>VENPOOSANI</u>

Botanical Name **:** Benincasa hisbida

English Name **:** Witer melon (Ashground)

Family **:** Cucurbitaceae

Organoleptic Character

Taste : Inippu

Potency : Thadpam

Division : Inippu

General Property

"ngUkg; rz;ffhafFg g;jjNkh Llfharry
mUQrhu euf llUfy-kUej;ly
g;jjRuk m]j;Ruk Ngatwlr; NkfKkNghk
nkjj md;yKWk t;s"

- Agasthiyar Gunavaagadam -

Actions:

- Diuretic
- Styptic
- Tonic
- Alterative

Chemical Composition

- Ø Linoleic acid (C18:2 ω-6),
- Ø Palmitic acid (C16:0),
- Ø Oleic acid (C18:1) and
- Ø Stearic acid (C18:0)

2. <u>THAALAI</u>

Botanical Name **:** Pandanus odoratissmus. Linn

English Name **:** Screw-pine

Family **:** Pandanaceae

Organoleptic Character

Taste : Thuvarppu

Potaeny : Thadpam

Division : Inippu

General Property

"kbrNrhwwhd kqifaufF khjhejg Ggghk
Ntbrrg;ewgr;ia t;isfFe;jbjjKiy
Rff;yjij neaiaj Jyt;fFQ Nrhignad;Dk
mfFyjij efFk mw;."

- Agasthiyar Gunavaagadam -

Actions:

- Refrigerant
- Diaphoretic
- Antispasmodic

3. <u>THENNAI</u>

Botanical Name : Cocos nucifera

English Name **:** Coconut tree

Family : Arecacea

Organoleptic Character

Taste : Thuvarppu

Potency : Thadpam

Division : Kaarppu

General Property

"Nkfk mffnfhj;gG tWt; ujjg;jjk
Ntf mr;uffuNeha tOg;uk; – Njfjj;y
t;ddkghy;fFk t;lghfk Nghfntdwhy
njddkghisg G;itj j;d".

- Agasthiyar Gunavaagadam-

Actions:

- Nutitive
- Stomachic
- Refeigerat
- Diureti

4. ELUMICHAI

Botanical Name : Citrus limon. Linn

English Name **:** Lime

Family : Rutaceae

Organoleptic Character

Taste : Pulippu

Potency : Vetppam

Division : Kaarppu

General Property

“jhfk FefNeha jhohr r‰y‰gjNeha
Ntfqnfhs cdkhjk tWg‰jjk - khfzNzha
fddNdha thej‰AkNghq flLth j‰jnjho‰y‰y
kdndYk‰rrqfd‰ia thojJ”.

- Agasthiyar Gunavaagadam-

Actions:

- Rubefacient
- Carminative

5. KARUMUBU

Botanical Name : Saccharum officinarum Linn

English Name **:** Sugar cane

Family : Poaceae

Organoleptic Character

Taste : Inippu

Potency : Thatppam

Division : Inippu

General Property:

“fUkg‰uj nkjjTzlhw fhZq fgNeha
t‰Ukg‰ntyy nkjjTzlhy Nkfk - jUkJeu
czlh kijk‰jkh Azlhyk fkg‰jjk
k‰zlhkw rhejKWk t‰s”.

- Agasthiyar Gunavaagadam-

Actions:

- Antiseptic
- Demulcent

6. SEERAGAM

Botanical name :*Cuminum cyminum Linn*

English name : Anise, Ani seed.

Family : Apiaceae.

Organoleptic characters:

Taste : Karppu, Inippu .

Potency : Tatpam

Division :Inippu.

General Property

"thAnthLehr¡Neha tdg¡jjQ NruhJ
fhak nef¡ohJfzFs¡Ue- J}akyhf
fhusfg ngzka¡Nyiffzlj¡jjidAQ
rufjijej¡dKe j¡d".

-mfjj¡au Fz thflk -

Chemical constituents:

Cuminaldehyde, cuminin,1,3- β menthadien-7-al, 1,4-β menthadien-7-al,δ-terpinene, β-pinene,7-1(O- β- D-galalacturonide), 3,5- dihydroxy flavones, glycosides of luteolin and apigenin. *[Ref. Book: Medicinal plants-Edward Jarald]*

Actions:

- Carminative
- Stimulant
- Stomachic
- Astringent

7. KOTHAMALLI

Botanical name: Coriandrum sativm Linn

English name: Coriander

Family : Apiaceae

Organoleptic characters:

Taste : Karppu

Potency : Seetha veepam

Division :Karppu

ngh J F z k:

nfhjjkyypntggk Fspufharry gpjjkejQ
rujjptpffy jhfnkhLjhJellk- fjjpnaOk
thjtpfhuklu tdfujjgptpuzk
Gjyjjpy yhjfwWk NghwW.

- mfjjpau Fz thflk.

Chemical constituents:

Essential oil, Linolool, monoterpene hydrocarbous , borneol, citrovellol, camphor, geraniol, geranyl acetalis, heterocyclic components, coriandrin, dihyhycoriandrine, coriandrones A-E, Flavonoids, Neochidilide, phenolic acids, sterols.

Ref. Book: Medicinal plants-Edward Jarald

Actions:

- Strong antifungitoxity
- Stomachic
- spasmolytic
- carminative
- Hydolipidemic
- Insulin releasing
- Microbicidal

8. <u>KOSTUM</u>

Botanical Name : Costus speciosus,(Koeng ex Retz.)Tree

English Name : Insulin tree

Family : Zinziberaceae.

Organoleptic Charecters:

Taste :Kaippu, Viruviruppu.

Potency :Veppam.

Division : Kaarppu.

General Property

“ehlbYW ntlil eLffk vDNehafs
Nfhllnkdr nrhddhy FiyAqfhz - $lbw
RuNjhle njhz ilNeha Njhyhj gpjjk
guNjrk NghNk gweJ”.

- Agasthiyar Gunavaagadam-

Actions:

- Anti- inflammatory,
- Spasmolytic,
- Muscle relaxant,
- Tonic,
- Stimulant.

9. **MILAGU**

Botanical Name **:** Piper nigrum

English Name **:** Black pepper

Family **:** Piperaceae

Organoleptic Character

Taste : Kaippu, kaarppu

Devision : Veppam

Division : Kaarppu

General Property

"rjRuk ghzL r‌Nyjkq f‌uhz‌Fdkk
thjk mUr‌g‌jjk kh%yk - XJrdd‌
ahrkg] khuk mldNkfk fhrk‌it
ehrq fw‌ k‌sf‌dhy".

- Agasthiyar Gunavaagadam-

Chemical Constituents:

A volatile alkaloid Piperine or Pipirine 5-9%, Piperidine or Piperidin 5%, Abalsamic volatile essential 1-2%, fat7%.Mesocarp contains chavicin, a balsamic volatile oil, starch, gum, Piperrettine, Piperanine, PipericideSarmentine, Eugenol.

Ref: Indian Herbal Pharmacopoeia, P – 321.

Actions:

- Carminative
- Pungent
- Antiperiodic
- Analgesic
- Anti inflammatory
- Antioxidant
- Cyclooxygenase inhibitory activity

Ref: Indian Herbal Pharmacopoeia, P – 324 Database, Vol. – 190.

10. MASIKKAI

Botanical Name : *Quercus infectoria*

English Name **:** Majuphal

Family : Fagaceae

Organoleptic Character

Taste :Thuvarppu

Potency : Thadpam

Division : Kaarppu

General Property

“mffuqfs Nghff;t;Lk khwhj ntggfwWk
NkafFWj; khr;ffha nkdNkYk - jffnjhU
ghyufz NehaNghfFk gdNkf Kenjhiyf Fk
Ntyida fzNzha t;skG”.

- Agasthiyar Gunavaagadam-

Actions:

- Nutitive
- Stomachic
- Refeigerat
- Diuretic

11. EALAM

Botanical name : Elettaria cardamomum Linn

English name **:** Cardamom

Family **:** Zingiberaceae.

Organoleptic characters:

Taste : Karppu .

Potency : Veppam

Division : Karppu.

nghJF z k:

"njhz ilthafTs jhYFjqfs;y
NjhdWk Nehaj;rhukgd Nkfjjhy
c z ilNghy vOq flbf;u;rruk
coiythej;r;yej;t;\QRuk

gz il ntfift;jhfNeha fhrKk
ghOQ Nrhkg g;z;t;eJellKk
mz ilaistd g;jjk ,itfnfyyhk
My khqfko VykUeNj"

-Theraiyar Gunavaagadam -

Chemical constituents:

1,8- cineole, α-terpinyl acetate, Limonene, sabinene, α-terpineol, α-pinene, linalool, 4,8,12- trimethyl , 4,8- dimethyl, 1,2,7,11- tridecatetraene

- Ref. Book: Medicinal plants-Edward Jarald]

Actions:

- Anti inflammatory
- Analgesic
- Anti spasmodic
- Anti oxidant
- Cholagogue

12. <u>SATHIKKAI</u>

Botanical Name **:** Myristica fragrans

English Name **:** Nut Meg

Family **:** Myristicaceae

Organoleptic Character

Taste : Thuvarppu, kaarppu

Potency : Veppam

Division : Kaarppu

General Property

"jhJ ellk Ngj;r rUthr;aQf;u Neha
XJRthrq fhrk clf;uz;–NtNjh
byffha tUkg;z;Nghk Vwwkay g;jjq
Fyffh aUeJtufFf $W".

- Agasthiyar Gunavaagadam-

Chemical Constituents:

Myristicine

Actions:

- Carminative
- Stimulant
- Tonic
- Aphrodisiac
- Aromatic

13. <u>SATHIPATHIRI</u>

Botanical Name **:** Myristica fragrans

English Name **:** Mace

Family **:** Myristicaceae

Organoleptic Character

Suvai	:	Inippu
Thanmai	:	Thadpam
Division	:	Inippu

General Property

“rhjpjUk gjjputFj jhgr Ruejzpak
XJfpdw gpjjk caUqfhz - jhJtpujjp
Azlhq fpufzpNah Nlhjf fopTryWk
Gzlhq FiwNa gfu”.

- Agasthiyar Gunavaagadam -

Actions:

- Carminative
- Stimuant
- Aphrodisiac
- Hypnotic

14. <u>ATHIMATHURAM</u>

Botanical name: Glycyrrhiza glabra Linn

English name : Liquorice

Family : Fabaceae

Organoleptic Characters:

Taste : Inippu

Potency : Thatpam

Division : Inippu

General Property

"fjj¡au¡Kgg¡z¡ahy tUGz jhfq
fzNehacd khjkt¡ffy ty¡ntz Fllk
g¡jjnkYk GUff¡f¡u¡rruk Mtujj
g¡jjkj %hrirt¡lghfk ntgge

jjj¡tUthjNrhz¡jqjhkhiy
rUtt¡lq fhk¡aNeha jhJellq
Fjj¡Uky Mr¡aqfk ,joNeha ,eJ
FagGZkNghk kJ}fnkdf $Wq fhNy".

- Theraiyar Gunavagadam -

Chemical constituents:

Glycyrrhizin, glycyrrhizic acid, GlabraninisA& B, Isoglabrolide, deoxoglabrolide, glabrolide, glycyrrhetol, Liquoric, Liquiritic, glycyrrhetic, glabranine, pinocembrin, prunetin, glucoliquitinapioside, prenyllico flavones A, echinatin.

- Ref. Book: Medicinal plants-Edward Jarald

Actions:

- Anti hepatotoxic activity
- Anti diuretic activity
- Inhibit tumor producing activity
- Anti viral

<u>15. ULUNTHU</u>

Botanical Name **:** *Vigna munga*.Linn

English Name **:** *Black gram*

Family **:** Papilionaceae

Organoleptic Character

Taste : Inippu

Potency : Thatppam

Division : Inippu

General properties;

"nraac Se jwFr rNyjktd ywgwfFk
ntaagjjk Nghkejk tWqfhz-nkaajdy
vdGUff jUk ,LgGf fLgykhk
KdG tUjjAzlha Kd". - mfjjau Fz thflk -

Actions

- Demulcent
- Refrigerant
- Galactagogue
- Aphriodisiac
- Nevine tonic

16. SATHAKUPPAI

Botanical name **:** *Anethum graveolens Linn*

English name **:** Garden dill

Family **:** Apiaceae

Organoleptic characters:

Taste : Inippu, Karppu

Potency : Veppam

Division : Karppu

General Property

thjnkhL #jfhthjk ruRNeha
NkhJnrtNehafgNeha %LRuk- XJfdw
%yf fLgGKjggdrk NghFk
Qhyr rjFgigehL.

- mfjjau Fz thflk

Chemical constituents:

Carvone

Limonene

α-bergamotene

α-pinene

Anonylaldehyde

[Ref. Book: standardization of Medicinal plants]

Actions:

- Carminative
- Diuretic
- Stimulant
- Stomachic
- Antispasmodic

17. PUNAIKKALI

Botanical Name **:***Mucuna pruiens*.Linn

Family **:**Fabaceae

Organoleptic Character

Taste : Thuvarppu

Potency : Thatppam

Division : Inippu

General Property

“jOji sehw wjNjhL rhu‰ujjg NghfFk
gOJGu‰ f‰dwfug ghDk - mONjFe
jhyk‰ir t‰eJTkhQ rhwww fUkG+idf
fhy‰ t‰ijiaf foW.

- Agasthiyar Gunavaagadam –

Actions:

- Astringent
- Nevine Tonic
- Aprodisiac

18. PERARATTAI

Botanical Name **:** *Alpinia galanga*

English Name **:** Greater Galagal

Family **:** Zingiberaceae

Organoleptic Character

Taste : Kaarppu

Potency : Veppam

Division : Kaarppu

General Property

“mujij fgjij mWfFqfhy XlLQ
rµujjµYWk <isiar rµijfFk - ,iujJtUk
gµjjNjh ljijg gµwtyµgig khwwµtµLk
cwwrut tytµlkNghf Fk”.

- Agasthiyar Gunavaagadam -

Actions:

- Expectoant
- Febrifuge
- Stomachic

19. CHUKKU

Botanical Name **:** *Zingiber officinale*

English Name **:** Dried ginger

Family **:** Zingiberaceae

Organoleptic Character

Taste : Kaarppu

Potency : Veppam

Division : Kaarppu

General Property

“#iykejk neQnruµgG NjhlNkg gkkoiy
%yk,iu ggµUky %fFeu - thyfg
Njhlkjµ rhue njhluthj Fdkeuj
NjhlkMkk NghfFQRfF”.

- Agasthiyar Gunavaagadam -

Chemical constituents:

Camphene, Phellandrene, Zingiberine, Cineol and Borneol, Gingerol a Yellow Pungent body, an Oleoresin-Ginger in the active principle, other resins and starch. B – Sesquiphellandrene, Gingerdiols, Gingerdiacetates are also present.

Ref: Indian Herbal Pharmacopoeia P – 443.

Actions:

Aromatic

Carminative

Stimulant

Stomachic

Digestive

20. THIPPILI

Botanical Name **:** Piper longum

English Name : Long Pepper

Family **:** Piperacae

Organoleptic Character

Taste : Kaarppu

Potency : Veppam

Division : Kaarppu

General property

"MrdNeha njhz ilNeha Mtuz gpjjKjy
Ehrptpo fhjpitNeha ehlGONeha - trpLtp
aqfyhQr dQrpijAk mkgha mopteJk
nghqfyhQr eqifau NfhlNghy"

Theran Venpa

Chemical Constituents:

Piperine (4 – 5%), Volatile Oil, Piperlonguminine,Piplartine, Sesamin, Terpenoids, Resin, Piperundecalidine.

Ref: Indian Herbal Pharmacopoeia revised – 2002, P – 310, 311.

Actions:

- Stimulant
- Carminative
- Alterative

21. VETPALAI

Botanical Name **:** *Wrightia tinctoria*. Roxb

English Name **:** Pala indigo plant

Family **:** Apocynaceae

Organoleptic Character

Taste : Inippu

Potency : Thatpam

Division : Inippu

General Property

“mff;d;ia itjj;UfF khuejth jkNghfFe
j;fFbu; Njhljij jujJt;Lk - nrhfft;U
flghiyf $wiwitjj fhd klka;Ny
ntlghiy edkUejhk t;s”.

- Agasthiyar Gunavaagadam -

Actions:

- Aphrodisiac
- Astringent

22. VASAMBU

Botanical Name **:** Acrous calamus. Linn

Synonym **:** Sweet flag

Family **:** Araceae

Organoleptic Character

Taste : Kaarppu

Potency : Veppam

Division : Kaarppu

General Property

"ghkghj‰ eQrw GjGz ty‰ t‰lghfq Fdkk
#kgh u‰ujjg‰j jkKf ehwwktd #iyrdd‰
tkghkig fhrk g‰yfQ r‰y‰gjk tw‰Uky
jhkghq f‰Uk‰ a‰itNaF khr‰t rkg‰idNa".

- Theraiyar Gunavaagadam -

Actions:

- Stimulant
- Carminative
- Antiperiodic
- Emetic
- Nauseant
- Disinfectant

23. NALLENNAI

Botanical Name **:** Sesamum indicum

English Name **:** Gingili oil

Family Name **:** Pedaliaceae

Organoleptic Character

Taste : Inippu

Potency : Veppam

Division : Inippu

General properties

"Gjj‰eadf Fs‰urr‰ g‹u‰gG nkagGfQ
rjJtq fej‰ jd‰a‰sik-nkjjTzlhq
fzNzha nrt‰Neha fghytoy fhr Neha
GzNzhagNgh nkdzNzhaNgh nkznzaahw NghwW".

- mfjj‰au Fz thflk-

Chemical Constituents:

Oleic and Linoleic Acid, Calcium, Phosphorus, Sodium Chloride, Lysine, Methionine, Free Fatty Acid, Oxalate and Aflatoxin B1

Actions:

- Demulcent
- Laxative
- Nutritive
- Emollient

24. THEN (HONEY)

It is a sweet food obtained made by bees using nectar from flowers.

Actions:

Laxative

Astringent

Expectorant

It has been used in the treatment of wounds, cough, in burns.

Chemical composition:

Fructose, glucose, maltose, sucrose, tiny amounts of several compounds thought to function as antioxidants such as chrysin, pinobanksin, vitaminC, catalase, pinocembrin.

Pharmacological activity:

Antioxidant activity of honey and its role in preventing health disorder

25. INDHUPPU

Sodium Chloride Impura

Taste : Uvarppu

Potency : Veppam.

Division : Kaarppu.

Actions: Stomachic, Diuretic, Carminative.

General Property:

“mllFdk kejk mr‰uffuQ#u rjg‰jje
Jlli tak ehbgGz Nlhlqfs - nfllkyf
flLt‰l t‰eijiaf fhk‰aNeha tqfugghd
t‰lLt‰l t‰eJgig t‰s”.

- Gunapaadam Thaathu Seeve Vakuppu -

26. **VELLATTU PAAL** (GOAT MILK)

General properties

"ntsshlL ghYfFNkt‰aew wgdkhe
JsshL thjg‰jjQ rhejkhk-cssiugGr
rjkj‰ rhuQr‰Ny \kkWk Gz zhWk
thj r‰Ny \kKgNgh khaeJ".

- Gunapaadam Thaathu Seeve Vakuppu –

Chemical constituents:

Carbohydrate (lactose), literature related to milk composition, fat, protein, vitamins, and minerals.

27. PASUMPAAL (COW'S MILK)

Chemical constituents:

Carbohydrate (lactose), literature related to milk composition, fat, protein, vitamins, and minerals.

General Property

"ghyu f‰otu goQRujNjhu Gz zhs‰
#iyau NkfjNjhu JugyjNjhu VYk‰tu
vyyhufF khFk ,isjjtufFQ rhjfkha
eyyha gRt‰d ehlL".

- Agasthiyar Gunavaagadam-

MATERIALS AND METHODS

Standard operating procedure:

Source of trial medicine:

The raw drugs for the preparation of *Venpoosani Legiyam* and *Ulunthu Thylam* were purchased from a well reputed Siddha raw drug selling shops (Herbal Shops) and the purchased drugs were authenticated by the competent authority from Department of Medicinal Botany, National Institute of Siddha. The raw drugs were purified separately and then the trial drugs were prepared in Gunapadam Laboratory of National Institute of Siddha.

Method of purification of raw drugs for internal medicine:

(Ref: Chikitcharathna Theepam, Kannusaamy Pillai, Rathna Nayakar & Sons 2007)

1. Venpoosani kaai Chaaru – (*Benincasa hispida*)

   Remove the external covering of the venpoosani kai and squeeze it and filter it then collect the juice in suitable vessel.

2. Thaalai vizhuthu Chaaru

   Remove the external covering of the Thaalai vizhuthu and squeeze it and filter it then collect the juice in suitable vessel.

3. Thennam poo Chaaru

   Remove the external covering of the young Thennam paalai and squeeze it and filter it then collect the juice in suitable vessel.

4. Pazha Chaaru

   Cut the limes and squeeze it and filter it then collect in a suitable vessel.

5. Milk

   After feed the calf clean the udder (Cow breast) by pure water then milking the milk in pure vessels after that wait for some time for disappear the froth then filter it.

6. Sarkarai (Sugar) - (*Saccharum officinarum*)

   Grind well and collect the fine particle by using sulakun (*sulaku*).

7. Seerakam - (*Cumius cyminum*)

   Wash it well and remove the seeds and dry it.

8. Koththumalli - (*Coriandrum sativum*)

   Covered with pure cloth and make it as kilikatti avitthal then dry it under sun shine.

9. Kostam - (*Costus speciosus*)

   Remove the foreign particles and dry it under sun shine.

10. Milaku - (*Piper nigram*)

    Soak it by fermented butter milk for 3 hours (01 *saamam*) then dry it.

11. Maasikkaai - (*Quercus infectoria olivier*)

    Remove the foreign particles and dry it under sun shine.

12. Elam - (*Elettaria cardamomum*)

    Remove the foreign particles and dry it under sun shine.

13. Saathikkai - *(Myristica fragrans*)

    Remove the external covering and cut it small pieces then dry it under sun shine.

14. Saathipathiri

    Remove the foreign particles and dry it under sun shine.

15. Athimathuram

    Washed it in pure water and remove the external covering then cut it as small particles and dry it under sun shine.

16. Thaaleesam

    Remove the foreign particles and dry it under sun shine.

17. Ghee

    Boil the cow batter in a sand pot until evaporate the water and filter it.

18. Honey

    Remove the foreign particles and filter it.

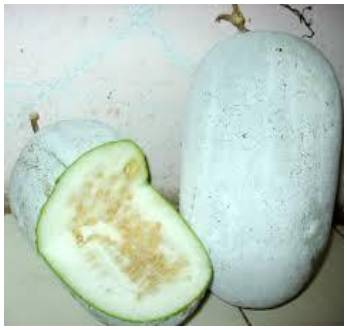
Drug storage:

The trial drug ***Venpoosani Legiyam*** (Internal) was stored in cleaned and dried glass container with air tighten. ***Ulunthu Thylam*** was stored in cleaned and dried narrow mouthed glass bottles with air tighten.

Dispensing:

The *Legiyam* was given in packets and Oil was given in pet bottles.

Venpoosani kai



Thazhai vizhuthu

Thennam poo

Elumicham pazham

Paal

Sarkarai

Seerakam

Malli

Kostam

Milaku

Masikkaai

Elam

Saathikkaai

Saathipathiri

Athimathuram

Thaalisam

Nei (Ghee)

Then (Honey)

Ulunthu

Velaattu paal

Nallennai

Poonaikkaali vithai

Sathakuppai

Perarathai

Chukku

Thippili

Vetpaalai pattai

Vasampu

Inthuppu

Venpoosani Legiyam

Ulunthuth Thylam

BIOCHEMICAL EVALUATION

Experimental procedure:

5 g of *Venpoosani Legiyam* was taken in a 250 ml of clean beaker and 50ml of distilled water was added to it. Then it was boiled well for about 10 min. Then it is allowed to cool and filtered in a 100 ml volumetric flask and made up to 100 ml with distilled water. This preparation is used for the qualitative analysis of acidic/ basic radicals and biochemical constituents in it.

Preparation of extract:

5gm of *Venpoosani Legiyam* weighed accurately and placed in a 250ml clean beaker and 50ml of distilled water was added with it. Then it was boiled well for about 10 minutes. Then it was allowed to cool and filtered in a 100ml volumetric flask and made up to 100ml with distilled water. The bio-chemical analysis of *Venpoosani Legiyam* was done at Biochemistry lab, National Institute of Siddha, Chennai-47.

Preliminary test for Copper, Sodium, Silicate and Carbonate:

Test for Silicate:

A little (500mg) of the sample is shaken well with distilled water.

A little (500mg) of the sample is shaken well with con. HCl / Con. H_2So_4.

Action of Heat:

A small amount (500mg) of the sample is taken in a dry test tube and heated gently at first and then strong.

Action of Heat:

A small amount (500mg) of the sample is taken in a dry test tube and heated gently at first and then strong.

Flame Test:

A small amount (500mg) of the sample is made into a paste with con. HCl in a watch glass and introduced into non-luminous part of the Bunsen flame.

Ash Test:

A filter paper is soaked into a mixture of sample and dil. cobalt nitrate solution and introduced into the Bunsen flame and ignited.

TEST FOR ACID RADICALS

Test for Sulphate:

2ml of the above prepared extract was taken in a test tube and 2ml of 4% dil. ammonium oxalate solution was added.

Test for Chloride:

2ml of the above prepared extracts was added with 2ml of dil-HNO_3 until the effervescence ceases off. Then 2 ml of silver nitrate solution was added.

Test for Phosphate:

2ml of the extract was treated with 2ml of con.HNo3 and 2ml of dil. ammonium molybdate solution.

Test for Carbonate:

2ml of the extract was treated with 2ml dil. magnesium sulphate solution

Test for Nitrate:

1 gm of the substance was heated with copper turning and concentrated H_2SO_4 and viewed the test tube vertically down.

Test for Sulphide:

1gm of the substance was treated with 2ml of con. HCL

Test for Fluoride & Oxalate:

2ml of extract was added with 2ml of dil. Acetic acid and 2ml dil.calcium chloride solution and heated**.**

Test for Nitrite:

3drops of the extract was placed on a filter paper, on that-2 drops of dil.acetic acid and 2 drops of dil. Benzidine solution were placed.

TEST FOR BASIC RADICALS

Test for Lead:

2ml of the extract was added with 2ml of dil. potassium iodine solution.

Test for Copper:

One pinch (50mg) of substance was made into paste with con. HCl in a watch glass and introduced into the non-luminous part of the flame.

Test for Aluminium:

In the 2ml of extract dil. sodium hydroxide was added in 5 drops to excess.

Test for Iron:

To the 2ml of extract add 2ml of dil. ammonium solution

To the 2ml of extract 2ml thiocyanate solution and 2ml of con HNo3 is added

Test for Zinc:

In 2ml of the extract dil. sodium hydroxide solution was added in 5 drops to excess and dil. ammonium chloride was added.

Test for Calcium:

2ml of the extract was added with 2ml of 4% dil. ammonium oxalate solution

Test for Magnesium:

In 2ml of extract dil.sodium hydroxide solution was added in drops to excess.

Test for Ammonium:

In 2ml of extract 1 ml of Nessler's reagent and excess of dil. sodium hydroxide solution were added.

Test for Potassium:

A pinch (25mg) of substance was treated with 2ml of dil. sodium nitrite solution and then treated with 2ml of dil. cobalt nitrate in 30% dil. glacial acetic acid.

Test for Sodium:

2 pinches (50mg) of the substance was made into paste by using HCl and introduced into the blue flame of Bunsen burner.

Test for Mercury:

2ml of the extract was treated with 2ml of dil. sodium hydroxide solution.

Test for Arsenic:

2ml of the extract was treated with 2ml of dil. sodium hydroxide solution.

Other constituents

Test for Starch:

2ml of extract was treated with weak dil. iodine solution

Test for Reducing Sugar:

5ml of Benedict's qualitative solution was taken in a test tube and allowed to boil for 2 minutes and added 8 to 10 drops of the extract and again boil it for 2 minutes.

Test for the Alkaloids:

2ml of the extract is treated with 2ml of dil. potassium iodide solution.

2ml of the extract is treated with 2ml of dil. picric acid.

Test for Tannic Acid:

2ml of extract was treated with 2ml of dil. ferric chloride solution

Test for Unsaturated Compound:

In the 2ml of extract 2ml of dil. Potassium permanganate solution was added.

Test for Amino Acid:

2 drops of the extract was placed on a filter paper and dried well, and then 20ml of Burette reagent was added in it.

PRELIMINARY PHYTOCHEMICAL SCREENING *VENPOOSANI LEGIYAM*

The preliminary phytochemical screening test was carried out for each extracts of ***Venpoosani legiyam*** as per the standard procedure.

1. Detection of alkaloids:

Extracts were dissolved individually in dilute Hydrochloric acid and filtered.

a) **Mayer's Test:** Filtrates were treated with Mayer's reagent (Potassium Mercuric Iodide). Formation of a yellow coloured precipitate indicates the presence of alkaloids.

b) **Wagner's Test:** Filtrates were treated with Wagner's reagent (Iodine in Potassium Iodide). Formation of brown/reddish precipitate indicates the presence of alkaloids.

c) **Dragendroff's Test:** Filtrates were treated with Dragendroff's reagent (solution of Potassium Bismuth Iodide). Formation of red precipitate indicates the presence of alkaloids.

d) **Hager's Test:** Filtrates were treated with Hager's reagent (saturated picric acid solution). Presence of alkaloids confirmed by the formation of yellow coloured precipitate.

2. Detection of carbohydrates:

Extracts were dissolved individually in 5 ml distilled water and filtered. The filtrates were used to test for the presence of carbohydrates.

Molisch's Test:

To 2 ml of plant sample extract, two drops of alcoholic solution of α- naphthol are added. The mixture is shaken well and few drops of concentrated sulphuric acid is added slowly along the sides of test tube. A violet ring indicates the presence of carbohydrates.

Benedict's Test:

Filtrates were treated with Benedict's reagent and heated gently. Orange red precipitate indicates the presence of reducing sugars.

Fehling's Test:

Filtrates were hydrolyzed with dil. HCl, neutralized with alkali and heated with Fehling's A & B solutions. Formation of red precipitate indicates the presence of reducing sugars.

3. Detection of glycosides:

Extracts were hydrolyzed with dil. HCl, and then subjected to test for glycosides.

Modified Borntrager's Test:

Extracts were treated with Ferric Chloride solution and immersed in boiling water for about 5 minutes. The mixture was cooled and extracted with equal volumes of benzene. The benzene layer was separated and treated with ammonia solution. Formation of rose-pink colour in the ammonical layer indicates the presence of anthranol glycosides.

Cardiac glycoside (Keller-Killiani test):

Extract was shaken with distilled water (5 mL). To this, glacial acetic acid (2 mL) containing a few drops of ferric chloride was added, followed byH_2SO_4 (1 mL) along the side of the test tube. The formation of brown ring at the interface gives positive indication for cardiac glycoside and a violet ring may appear below the brown ring.

Legal's Test:

Extracts were treated with sodium nitroprusside in pyridine and sodium hydroxide. Formation of pink to blood red colour indicates the presence of cardiac glycosides.

4. Detection of Saponins

Froth Test:

Extracts were diluted with distilled water to 20ml and this was shaken in a graduated cylinder for 15 minutes. Formation of 1 cm layer of foam indicates the presence of saponins.

Foam Test:

0.5 gm of extract was shaken with 2 ml of water. If foam produced persists for ten minutes it indicates the presence of saponins.

5. Detection of phytosterols

Salkowski's Test:

Extracts were treated with chloroform and filtered. The filtrates were treated with few drops of Conc. Sulphuric acid, shaken and allowed to stand. Appearance of golden yellow colour indicates the presence of triterpenes.

6. Detection of phenols Ferric Chloride Test:

Extracts were treated with 3-4 drops of ferric chloride solution. Formation of bluish black colour indicates the presence of phenols.

7. Detection of tannins Gelatin Test:

The extract is dissolved in 5 ml of distilled water and 2 ml of 1% solution of Gelatin containing 10% NaCl is added to it. White precipitate indicates the presence of phenolic compounds.

8. Detection of flavonoids

Alkaline Reagent Test:

Extracts were treated with few drops of sodium hydroxide solution. Formation of intense yellow colour, which becomes colourless on addition of dilute acid, indicates the presence of flavonoids.

Lead acetate Test:

Extracts were treated with few drops of lead acetate solution. Formation of yellow colour precipitate indicates the presence of flavonoids.

9. Detection of proteins and aminoacids

Xanthoproteic Test:

The extracts were treated with few drops of conc. Nitric acid. Formation of yellow colour indicates the presence of proteins.

Ninhydrin Test:

To the extract, 0.25% w/v ninhydrin reagent was added and boiled for few minutes. Formation of blue colour indicates the presence of amino acid.

Biuret test:

2 ml of filtrate is treated with 1 drop of 2% copper sulphate solution. To this 1 ml of ethanol (95%) is added, followed by excess of potassium hydroxide pellets. Pink colour ethanolic layer indicates the presence of protein.

10. Detection of diterpenes Copper Acetate Test:

Extracts were dissolved in water and treated with 3-4 drops of copper acetate solution. Formation of emerald green colour indicates the presence of diterpenes

11. Gum and Mucilage:

To 1ml of extract add 2.5ml of absolute alcohol and stirring constantly. Then the precipitate was dried in air and examine for its swelling properties. Swelling was observed that will indicate presence of gum and mucilage.

12. Test for Fixed oils and Fats

Spot test:

A small quantity of extract is pressed between two filter papers. Oil stain on the paper indicates the presence of fixed oils.

13. Test for Quinones

Extract was treated with sodium hydroxide blue or red precipitate indicates the presence of Quinones.

The Preliminary phytochemical studies of aqueous extract of ***Venpoosani legiyam*** were done using standard procedures. The results were presented in tables. The present study reveals that the bioactive compounds were present in all the extracts of ***Venpoosani legiyam***.

PHYSIOCHEMICAL ANALYSIS OF -*VENPOOSANI LEGIYAM*

1. **Loss On Drying:**

   An accurately weighed 2g of ***Venpoosani Legiyam*** formulation was taken in a tarred glass bottle. The crude drug was heated at 105^0C for 6 hours in an oven till a constant weight. Percentage moisture content of the sample was calculated with reference to the shade dried material.

2. **Determination of total ash:**

   Weighed accurately 2g of ***Venpoosani Legiyam*** formulation was added in crucible at a temperature 600^0C in a muffle furnace till carbon free ash was obtained. It was calculated with reference to the air dried drug.

3. **Determination of acid insoluble ash:**

   Ash above obtained, was boiled for 5min with 25ml of 1M Hydrochloric acid and filtered using an ash less filter paper. Insoluble matter retained on filter paper was washed with hot water and filter paper was burnt to a constant weight in a muffler furnace. The percentage of acid insoluble as was calculated with reference to the air dried drug.

4. Determination of water soluble ash:

Total ash 1g was boiled for 5min with 25ml water and insoluble matter collected on an ash less filter paper was washed with hot water and ignited for 15 min at a temperature not exceeding 450^0C in a muffle furnace. The amount of soluble ash is determined by drying the filtrate.

Determination of water soluble Extractive:

5gm of air dried drug, coarsely powered ***Venpoosani Legiyam*** was macerated with 100ml of distilled water in a closed flask for twenty-four hours shaking frequently. Solution was filtered and 25 ml of filtrated was evaporated in a tarred flat bottom shallow dish, further dried at 100^0 C and weighted. The percentage of water soluble extractive was calculated with reference to the air dried drugs.

5. Determination of alcohol soluble extractive:

2.5gm. of air dried drugs; coarsely powdered ***Venpoosani Legiyam*** was macerated with 50 ml. alcohol in closed flask for 24 hrs. With frequent shaking it was filtered rapidly taking precaution against loss of alcohol. 10ml of filtrate was then evaporated in a tarred flat bottom shallow dish, dried at 100^0C and weighted. The percentage of alcohol soluble extractive was calculated with reference to air dried drug.

DETERMINATION OF MICROBIAL LOAD

The determination of microbial load as described below was carried out on sample as per the WHO guidelines (Anonymous 2007) was done by Regional Research Institute of Unani Medicine, RRIUM, Royapuram, Chennai 13.[56]

Pre-treatment of the test material:

Depending on the nature of the crude herbal material grind, dissolve, dilute, suspend or emulsify it using a suitable method and eliminate any antimicrobial properties by dilution, sterilisation or filtration. Either phosphate buffer pH 7.0 or fluid medium, used to suspend or dilute the test specimen. Test procedure for the Enterobacteriaceae and certain other Gram-negative bacteria.

Detection of bacteria

Homogenise the pre-treated material appropriately and incubate at 30 - 37°c for a length of time sufficient for multiplication of the organisms. Shake the container, transfer aliquots equivalent to 1 gm or ml of the homogenised material to 100ml of entero-bacteria enrichment broth Mossel and incubate at 35 – 37°c for 18 – 48 hours. Prepare a subculture on a plate with culer red bile agar with glucose and lactose. Incubate at 35 - 37°c for 18-48 hours. The material process of the test, if no growth of colonies of Gram - negative bacteria is detected on the plate.

Test Procedure:

Plate Count:

For bacteria use Petri dishes 9-10 cm in diameter. To one dish add a mixture of 1ml of the pre-treated herbal material and about 15ml of liquefied casein-soya bean digest agar at a temperature not exceeding 45°c. Alternatively, spread the material on the surface of the subdivide medium in a Petri dish. If necessary, dilute the material to obtain an expected colony count of not more then 300. Prepare two dishes using the same dilution, invert them and incubate them at 30-35°c for 48-72 hours, unless a reliable count is obtained in a short period of time. Count the number of colonies formed and calculates the result using the plate with the largest number of colonies, up to a maximum of 300. For fungi use Petri dishes 9-10cm in diameter. To one dish add a mixture of 1ml of pre-treated material and about 15ml of liquefied saborated glucose agar with antibiotics at a temperature not exceeding 45°c alternatively, spread the pre-treated material as described above to obtain are expected colony count of not more than 100. Prepare at least two distinguishing the same dilution and incubate them upright at 20-25°c for 5 days, unless a more reliable count in obtained in a shorter period of time. Count the number of colonies formed and calculates the results using the dish with not more than 100 colonies.

E. coli:

Transfer a quantity of the homogenised material in lactose both prepared and incubated to described above, containing 1g or 1ml of the material being examined to 100ml of MacConkey agar and incubate at 43-45°c for 18-24 hours. Prepare a subculture on plate with MacConkey agar and incubate at 43-45°c for 18-24 hours. Growth of red, generally non-mucoid colonies of Gram-negative tods, sometimes surrounded by a reddish zone of precipitation, indicates the possible of E.Coli. This may be confirmed by

the formation of indole at 43.5-44.5°c or by other biochemical reactions. The material passes the test if no such colonies are detected or if the confirmatory biochemical reactions are negative.

Salmonella:

Incubate the solution, suspension or emulsion of the pre-treated material prepared an described above at 35-37°c for 5-24 hours, as appropriate for enrichment.

Primary test

Transfer 10 ml of the enrichment culture to 100 ml of tetrachionats bide brilliant broth and incubate at 42-43° for 18 – 24 hours. Prepare subcultures on at least two of the following three agar media citrate agar, sylose, lysine deoxycholate agar, and birllen agar, in culture at 35 – 37° c for 24 – 48 hours.

Secondary test

Prepare a subculture of any colonies showing the characteristics on the surface of triple sugar iron agar using the deep inoculation technique. This is done by first inoculating the needle and then, incubating at 35 – 37 c for 18 – 24 hours. The test is positive for the presence of salmonella spp. If a change of colour from red to yellow is observed in the deep culture (but not in the surface culture), usually with the formation of gas with or without productions on hydrogen sulphide in the agar. Confirmation is obtained by appropriate biochemical and serological tests. The material being examined passes the test if cultures of the type described do not appear in the primary test, or if the confirmatory biochemical and serological tests are negative.

Staphylococcus aureus:

Prepare an enrichment culture as described for Pseudomonas aerginosa. Prepare a subculture on a suitable medium such as Baird – parker agar. Incubate at 35 - 37° c for 24-48 hours. The material passes the test if no growth of microorganisms is detected. Black colonies of Gram positive cocci often surrounded by clear zones may indicate the presence Staphylococcus aureus. For catalase - positive cocci, confirmation may be obtained, for exam by coagulase and deoxyribonuclese tests.

VENPOOSANI LEGIYAM

PART - C: TEST PERFORMED

Microbial load:

The procedures recommended for analysis of microbial load as per the WHO guideline (WHO, 2007).

Test for Aflatoxin:

The procedures recommended for the detection of Aflatoxin as per WHO guidelines (WHO 2007).[57]

Instrument Details:

Name of the Instrument : CAMAG (CAMAG - Automatic TLC sampler, Scanner and Visualiser)

Spray Gas : N2

Lamp used : Deuterium and Tungsten Lamp

The samples were processed as per procedures recommended in WHO 2007 and applied for the Thin Layer Chromatography and High Performance Thin Layer Chromatography study with suitable solvent systems. After development the plate was allowed to dry in air and examined under UV 366nm.

Test for Aflatoxin analysis:

The sample (8µl) and Standard - G2, G1, B2 and B1 (20µl) were applied on TLC aluminium sheet silica gel 60 F 254 (E.MERCK) and plate was developed using the solvent system Chloroform: Acetone: Water (14: 2: 0.2). After development the plate was allowed to dry in air and examined under UV 366 nm.

CLINICAL STUDY

STUDY TYPE	:	An Open Clinical Trial
STUDY PLACE	:	OPD of Ayothidoss Pandithar Hospital, National Institute of Siddha, Tambaram Sanatorium, Chennai – 600047
STUDY PERIOD	:	2014– 2017
SAMPLE SIZE	:	40 patients

SUBJECT SELECTION:

Patients reporting with symptoms of inclusion criteria were subjected to screening test and documentation.

Inclusion criteria:

- Age : 18 - 45 years
- Sex : Males only
- Weakness, anxiety, sleeplessness, mild depression and guilt which is attributed to semen loss.
- Loss of semen through nocturnal emissions and masturbation frightens the individual as he believes it to be harmful to the body.
- Report a white discharge in their urine which they feel is semen.
- Mention that passing semen during defecation
- Sexual dysfunction may or may not be present.
- Willing to give specimen of blood and sperm for the investigations before and after treatment.
- Willing to participate in Psycho – education therapy sessions
- Willing to participate in trial and signing consent by fulfilling the condition of Proforma.

Exclusion criteria:

- Chyluria
- Diabetes mellitus
- Severe Cardiac Diseases
- Severe Respiratory Diseases
- Acute and chronic Renal Diseases
- Needed for Surgical Treatment
- Alcohol and Substance Abuse
- Other severe Psychiatric Illness
- Mentally Challenged
- Physically Challenged
- Severe Malignancy Diseases
- Any other chronic Illness

Withdrawal criteria:

- Ø Intolerance to the drug and development of any serious adverse effect during drug trial.
- Ø Poor patient compliance & defaulters
- Ø Patient unwilling to continue the course of clinical study
- Ø Patient reluctant to continue the Psycho-education sessions
- Ø Any drastic changes occurring in hematological finding during treatment period.
- Ø Increase in severity of symptoms
- Ø Occurrence of any other systemic illness

TESTS AND ASSESMENTS:

1. Clinical assessment
2. Siddha system assessment
3. Routine investigations

1.Clinical Assessment:

- Ø Conduct by use the Dhat Syndrome Symptoms Check-list (DSSC)
- Ø Psycho – Educations Screening and Assessment Questionnaire

2. Investigations based on Siddha system:

1. Naadi
2. Sparisam
3. Naa
4. Niram
5. Mozhi
6. Vizhi
7. Malam
8. Moothiram
    - Neerkkuri :
    - Neikkuri :

3. INVESTIGATION:
BLOOD

- Hb
- Total WBC Count

- Polymorphs
    - Lymphocytes
    - Eosinophils
    - Monocytes
    - Basophils
- Total RBC count
- ESR ½ Hr: 1 Hr:
- Blood sugar : Fasting: PP:
- Serum cholesterol

URINE

- Albumin
- Sugar(F) (PP)
- Deposits

RENAL FUNCTION TESTS

Blood Urea

Serum Creatinine

Uric acid

LIVER FUNCTION TESTS

Serum total Bilirubin

Direct Bilirubin

Indirect Bilirubin

Serum Alkaline Phosphatases

SGOT

SGPT

LIPID PROFILE:

HDL:

LDL:

VLDL:

Total Cholesterol

TGL:

SEMEN ANALYSIS

Normal Semen analysis test

DATA COLLECTION:

Required information will be collected from each patient by using the following forms;

Forms:

Form I	Screening and selection Proforma,
Form I B	Psychological assessment Performa
Form II	History taking & Clinical assessment Proforma
Form III	Laboratory investigation Proforma
Form IV	Drug compliance form
Form V	Adverse Reaction / Pharmaco Vigilance form
Form VI	Patient information sheet
Form VII	Patient Consent form
Form VIII	Withdrawal form
Form IX	Dietary Advice form

Study Enrolment:

- Patients reporting at the OPD with symptoms of weakness, anxiety, sleeplessness, mild depression and guilt which is attributed to semen loss, and loss of semen through nocturnal emissions and masturbation frightens the individual as he believes it to be harmful to the body and also report a white discharge in their urine which they feel is semen are chosen for enrolment based on the inclusion and exclusion criteria.

- The enrolled patients will be informed about the study, trial drug, possible outcomes and the objectives of the study in the language and terms understandable to them and getting consent in the Informed Consent form (Form VI).

- Complete clinical history, complaints and duration, examination findings all would be recorded in the prescribed Proformas.

- Screening Form- I and I.B will be filled up, Form –II and Form –III will be used for recording the patients, history, clinical examination of symptoms and signs and laboratory investigations respectively. If there is any abnormal laboratory reports obtained then excluded from this study. Patients would be advised to take the trial drug and appropriate dietary advice (Form IX) would be given according to the patients, perfect understanding.

Conduct of the study:

Three days before the treatment, purgation therapy had given with *Meganatha Kulikai*- 2 in the early morning with *Inji chaaru* (ginger juice) for normalising the vital humours. Then the trial Medicines "*Venpoosani Legiyam*" (internal) and "*Ulunthuth Thylam*" (external) was given for 48 days.

Among the 40 patients, 20 patients were received trial the medicines only and the remaining (randomised) 20 patients were received the prescribed Psycho-education / Counselling therapy along with trial medicines.

The patients are requested to visit the hospital OPD once in 7 days for 48 days. In each and every visit the patients received trial medicines and also underwent clinical assessment and the prognosis were recorded with the supervision of the Faculty member.

The each randomised selected 20 patients (1, 2, 5, 7, 9, 12, 13, 15, 17, 19, 21, 22, 25, 27, 29, 32, 34, 36, 37 and 39) were received the Psycho-education / Counselling session for six times per week from the 2^{nd} visit for the trial medicine to 7^{th} visit.

Laboratory investigations were done before and after the trial. At the end of the trial, the patients were advised to visit the OPD for further 2 months for follow-up for any recurrence. Defaulters had not allowed to continue and withdrawn from the study with fresh case had being inducted.

Adverse / serious effects management:

In this study, no adverse events were observed during the course of the treatment and follow-up periods.

DATA ANALYSIS:

Data analysis:

After enrolled the patients in the study, a separate file for each patient was maintained and all forms were kept in the file. Study number and patient's number were entered on the top of the file for easy identification. Whenever the patients visit to OPD during the study period, the necessary entries was made at the assessment forms.

The screening forms were filled separately. All forms were further scrutinized by Senior Research Officer (Statistics) for logical errors and incompleteness of data to avoid any bias. No modification in the results is permitted for unbiased reports. The software of SPSS will be used for data analysis.

Dhat Syndrome Symptoms Checklist (DSSC)

(S.K. Srivastsa, Applied and Community Psychology - Trends and directions, Volume, 2, edition 2005, page No. 596 to 600.)

This questionnaire enquires about the problem of Dhat. I request you to read each question carefully and tick (√) Score of most suits to your response (s) considered to be most appropriate by you. Please answer all questions.

	Symptoms	**Scoring**				
		00	01	02	03	04
	Physical					
01	Generalized weakness					
02	Backaches					
03	Localized ache and pain					
04	Ache and pain not localized					
05	Weakness of nerves					
06	Loss of hair					
07	Fatigue					
08	Abdominal distension					
09	Constipation					
10	Shrinkage penis					
11	Excessive salivation					
	Somatic					
12	Restlessness					
13	Excessive sweating					
14	Blurred vision					
15	Poor sleep					
16	Singing of heart					
17	Numbness in the limbs					
18	Burning sensation of chest					
19	Acidity					
20	Dryness of mouth					
21	Palpitation					

	Psychological					
22	Fear					
23	Guilty					
24	Shyness					
25	Embarrassment					
26	Anxiety					
27	Loss of confidence					
28	Nervousness					
29	Poor memory					
30	Low mood					
31	Suicidal thoughts					
32	Not being oneself (depersonalization)					
	Sexual/ genital					
33	Burning micturition					
34	Penile discharge					
35	Thinness of seminal fluid					
36	Penile discharge before passing urine					
37	Premature ejaculation					
38	Penile discharge after passing urine					
	Desire					
39	Lack of interest in sex					
40	Decrease desire for sex					

Scoring

00 - Not at all 01 - Mildly 02 - Moderately 03 - Severe 04 - More severe.

Scoring chart

0 1 2 3 4

Psycho – Education / Counselling Screening and Assessment Questionnaire

Psychological and Counselling

Brief Adult Outcome Questionnaire Version II (BAOO – II)

The Brief questionnaire asks about some of the most commonly reported thoughts, feeling and behaviours among adults seeking behavioural health treatment. Please think about the past two weeks and answer the questions below to the best of your ability. This will help you and your therapist / doctor to plan your treatment and monitor your improvement.

	How often did you	**Never**	**Hardly ever**	**Some times**	**Often**	**Very often**
01	Feel unhappy or sad					
02	Have little or no energy					
03	Have a hard time getting along with family, friends, or co-workers					
04	Feel hopeless about the future					
05	Have a hard time paying attention					
06	Feel unproductive at work or other daily activities					
07	Feel tense or nervous					
08	Have problem with sleep (too much or too little)					
09	Feel lonely					
10	Think about harming yourself					
11	Have someone express concerns about your loss of semen					
12	Have more than five times of passing semen in a one week time					
13	Have a problem at work, college, or home because of excess semen loss issue					

Please take a moment to assess your last session to help us better serve your needs:

	Please answer according to their relevance	**True**	**Almost True**	**Unsure**	**Almost False**	**False**
01	I felt we talked about the things that were important to me.					
02	I felt that the therapist/ doctor liked and understood me.					
03	I felt that the session has helpful.					
04	I felt confident that the therapist/ doctor and I worked well together					

Outcome:

Primary Outcome

1. Comparison before and after intervention with DSSC
2. Categorization by the DSSC scoring
    - DSSC scoring ≤ 40 - Good
    - DSSC scoring 41 to 80 - Moderate
    - DSSC scoring 81 to 120 - Mild
    - DSSC scoring ≥ 121 - Nil

Secondary Outcome

- The effectiveness of Psycho-education by comparing before and after treatment

RESULTS OF PRECLINICAL STUDY

1). BIO-CHEMICAL AND ELEMENTAL ANALYSIS OF TRIAL MEDICINE

Qualitative Analysis

SL. NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	Appearance of the sample	Greenish Brown in Colour	
2.	**Solubility:** a. A little of the sample is shaken well with distilled water. b. A little of the sample is Shaken well with con. Hcl Con. H_2SO_4.	Completely soluble Completely soluble	 Absence of Silicate
3.	**Action of Heat:** A small amount of the sample is taken in a dry test tube and heated gently at first and then Strong.	White fumes not evolved Brown fumes not evolved	Absence of Carbonate. Absence of Nitrate.
4.	**Flame Test:** A small amount of the sample is made into a paste with con. Hcl in a watch glass and introduced into non-luminous part of the Bunsen flame.	White flame is appeared	Absence of Copper.
5	**Ash Test:** A filter paper is soaked into a mixture of sample and cobalt nitrate solution and introduced into the Bunsen flame and ignited.	No Yellow colour flame.	Absence of Sodium.

Preparation of extract

5 gm of *Venpoosani Legiyam* was weighed accurately and placed in a 250 ml clean beaker. Then 50 ml distilled water was added and dissolved well. Then it is boiled well for about 10 minutes. It was cooled and filtered in a 100 ml volumetric flask and then it was made up to 100 ml with distilled water. This fluid was taken for analysis.

SL. NO.	EXPERIMENT	OBSERVATION	INFERENCE
TEST FOR ACID RADICALS			
1.	**Test For Sulphate:** a. 2 ml of the above prepared extract is taken in a test tube to this added 2ml of 4% ammonium oxalate solution. b. 2ml of the above prepared extract is added with 2 ml of dil-Hcl is added until the effervescence ceases off. Then 2ml of Barium chloride solution is added.	Cloudy appearance present A white precipitate insoluble in con. Hcl is obtained	Absent of Sulphate
2.	**Test For Chloride:** 2 ml of the above prepared Extract is added with dil. HNO_3 till the effervescence ceases. Then 2 ml of silver nitrate solution is added.	Cloudy appearance present (Mild trace element)	**Presence of Chloride.**
3.	**Test For Phosphate:** 2 ml of the extract is treated with 2ml of ammonium molybdate solution and 2 ml of con. HNO_3	No Cloudy yellow appearance	Absence of Phosphate.
4.	**Test For Carbonate:** 2m1 of the extract is treated with 2m1 magnesium sulphate solution	No cloudy appearance	Absence of Carbonate.

5	**Test For Nitrate:** 1gm of the substance is heated with copper turnings and concentrated H_2SO_4 and viewed the test tube vertically down.	Brown gas is not evolved	Absence of Nitrate.
6.	**Test For Sulphide:** 1 gm of the substance is treated with 2m1 of con. Hcl.	No Rotten egg smelling gas evolved	Absence of Sulphide.
7.	**Test for Fluoride and oxalate** 2 m1 of The Extract Is Added With 2m1of Acetic Acid and 2 m1 calcium Chloride solution and heated.	No Cloudy appearance.	Absence of Fluoride & Oxalate
8.	**Test for Nitrate** 3 drops of extract is placed on a filter paper, on that 2 drops of acetic Acid and 2 drops of benzidine solution is placed.	No characteristic Changes.	Absence of nitrite.
9.	**Test For Borate:** 2 pinches of the substance is made into paste by using sulphuric acid and alcohol (95%) and introduced into the blue flame.		Absence of borate.

II. TEST FOR BASIC RADICALS			
1	**Test For Lead:** 2 m1of the extract is added with 2m1of potassium iodide solution.	No Yellow precipitate is obtained	Absence of Lead.
2.	**Test for Copper:** a. One pinch of substance is made into paste with con. Hcl in a watch glass and introduced into the non-luminous part of the flame. b. 2 ml of extract is added with excess of ammonia solution.	No Blue colour flame precipitate No Blue colour precipitate	Absence of Copper. Absence of Copper.
3.	**Test For Aluminium:** Take the 2m1of the extract sodium hydroxide is added in drops to excess.	No characteristic changes	Absence of Aluminium.
4.	**Test For Iron: (Ferrous)** To the 2 ml of extract 2m1 ammonium thiocyanate solution and 2m1of con.HNO_3 is added.	Blood red colour Appearance	**Presence of Iron.**
5.	**Test For Zinc:** To 2m1 of the extract sodium hydroxide solution is added in drops to excess.	White precipitate is not Formed	Absence of Zinc.
6.	**Test For Calcium:** 2m1 of the extract is added with 2m1 of 4% ammonium oxalate Solution.	Cloudy appearance and white precipitate is obtained	Absence of Calcium.

7.	**Test For Magnesium:** To 2ml of extract sodium hydroxide solution is added in drops to excess.	White precipitate is not obtained.	Absence of Magnesium.
8.	**Test For Ammonium:** To 2ml of extract few ml of Nessler's reagent and excess of sodium hydroxide solution are added.	No brown colour appeared.	Absence of Ammonium.
9.	**Test For Potassium:** A pinch of substance is treated with 2ml of sodium nitrite solution and then treated with 2m1 of cobalt nitrate in 30% glacial acetic acid.	No Yellowish precipitate is obtained	Absence of Potassium.
10.	**Test For Sodium:** 2 pinches of the substance is made into paste by using HCL and introduced into the blue flame of Bunsen burner.	No Yellow colour Flame appeared.	Absence of Sodium.
11.	**Test For Mercury:** 2 m1 of the extract is treated with 2ml of sodium hydroxide solution.	Yellow precipitate is not obtained	Absence of Mercury.
12.	**Test For Arsenic:** 2 m1 of the extract is treated with 2m1 of sodium hydroxide solution.	No brownish red Precipitate is obtained	Absence of Arsenic.

III. MISCELLANEOUS			
1.	**Test for Starch:** 2 ml of extract is treated with weak iodine solution.	No blue colour developed	Absence of Starch.
2.	**Test For Reducing Sugar:** 5. ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 minutes and added 8 to 10 drops of the extract and again boil it for 2 minutes. The colour changes are noted.	No Brick red colour developed	Absence of Reducing sugar.
3.	**Test For The Alkaloids:** a. 2m1 of the extract is treated with 2 ml of potassium Iodide solution. b. 2m1 of extract is treated with 2ml of picric acid. c. 2m1 of the extract is treated with 2ml of phosphotungstic acid.	Red colour developed Trace Yellow colour developed White precipitate developed	**Presence of Alkaloid.** **Trace of Alkaloid present.** **Presence of Alkaloid.**
4.	**Test for Tannic Acid:** 2 ml of extract is treated with 2ml of ferric chloride solution.	Black precipitate is obtained	**Presence of Tannic acid.**
5.	**Test for Unsaturated Compound:** To the 2ml of extract 2ml of Potassium Permanganate solution is added.	Potassium Permanganate is decolourised	**Presence of Unsaturated Compound.**

6.	**Test For Amino Acid:** 2 drops of the extract is placed on a filter paper and dried well and 2 ml of biuret reagent is added	No Violet colour developed	Absence of Amino acids.
7.	**Test For type of Compound:** 2ml of the extract is treated with 2 ml of ferric chloride solution.	Green colour developed No Red colour developed No Violet colour developed No blue colour developed	Presence of oxy quinole epinephrine and pyro catechol. Anti pyrine, Aliphatic amino acids and Meconic acid are absent. Apomorphine, Salicylate and Resorcinol are absent. Morphine, Phenol cresol and hydro quinone are absent

RESULT:

The Bio-chemical analysis of *Venpoosani Legiyam* had shown the presence of Chloride, Phosphate, Reducing Sugar, Iron, Tannic acid, oxy quinole epinephrine and pyro catechol, unsaturated compound and Alkaloids.

2. PHYTOCHEMICAL ANALYSIS

S.no	Phytochemicals	Test Name	H_2O ext.
1.	Alkaloids	Mayer's Test	-ve
		Wagner's Test	-ve
		Dragendroff's Test	-ve
		Hager's Test	-ve
2.	Carbohydrates	Molisch's Test:	**+ve**
		Benedict's Test	**+ve**
		Fehling's Test	-ve
3.	Glycoside	Modified Borntrager's Test	**+ve**
		Cardiac glycoside (Keller-Killiani test)	**+ve**
		Legal's Test	**+ve**
4.	Saponin	Froth Test	-ve
		Foam Test	**+ve**
5.	Phytosterol	Salkowski's Test	**+ve**
6.	Phenol	Ferric Chloride Test	**+ve**
7.	Tannins	Gelatin Test	-ve
8.	Flavonoids	Alkaline Reagent Test	**+ve**
		Lead acetate Test	**+ve**
9.	Proteins and amino acids	Xanthoproteic Test	**+ve**
		Ninhydrin Test	-ve
		Biuret test	**+ve**
10.	Diterpenes	Copper Acetate Test	**+ve**
11.	Gum and Mucilage	Extract + alcohol	**+ve**
12.	Fixed oils and Fats	Spot test	**+ve**
13.	Quinones	NAOH + Extract	**+ve**

+ve/-ve present or absent if component tested

The above stated physiochemical properties for the given sample certified to be present.

3) PHYSIOCHEMICAL ANALYSIS OF -VENPOOSANI LEGHEYAM

S.no	Parameters	Percentage
1	Loss on drying	11.09%
2	Total ash value	1.49%
3	Acid insoluble ash	Less than 1%
4	Water soluble ash	Less than 1%
5	Water soluble extraction	54.84%
6	Alcohol soluble extraction	35.08%

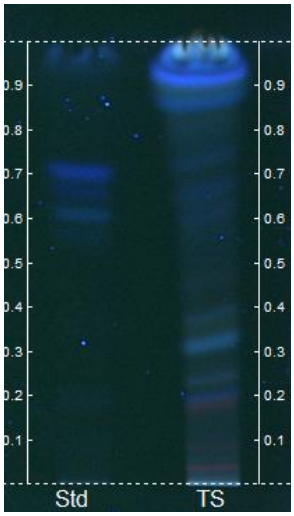
The above stated physiochemical properties for the given sample certified to be present.

RESULT OF DETERMINATION OF MICROBIAL LOAD

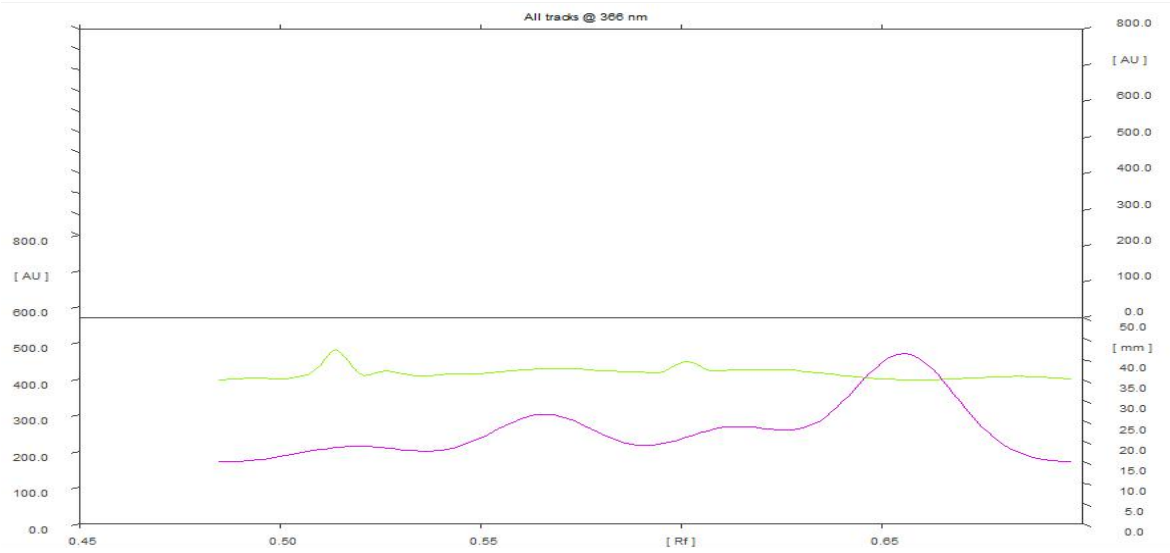
Analysis of Microbial Load:

S. No.	Parameters	Reference Limits as per WHO (2007)	Results	Remarks
1	**Total Bacterial Count (TBC)**	10^5CFU/gm	$3x10^3$cfu/ml	Within permissible limits
2	**Total Fungal Count (TFC)**	10^3CFU/gm	Less than 10 cfu/ml	
3	**Enterobacteriaceae**	10^3	Absent	
4	***Escherichia coli***	10	Absent	
5	**Salmonella Spp**	Absent	Absent	
6	***Staphylococcus aureus***	Absent	Absent	

Result of Aflatoxin analysis Test:

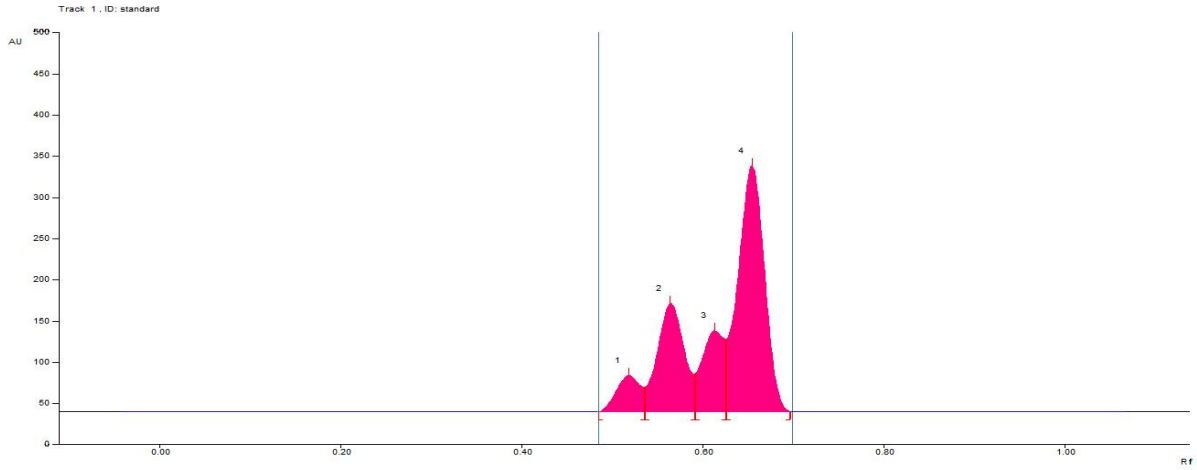


UV-366nm



Densitometric chromatogram at UV-366nm

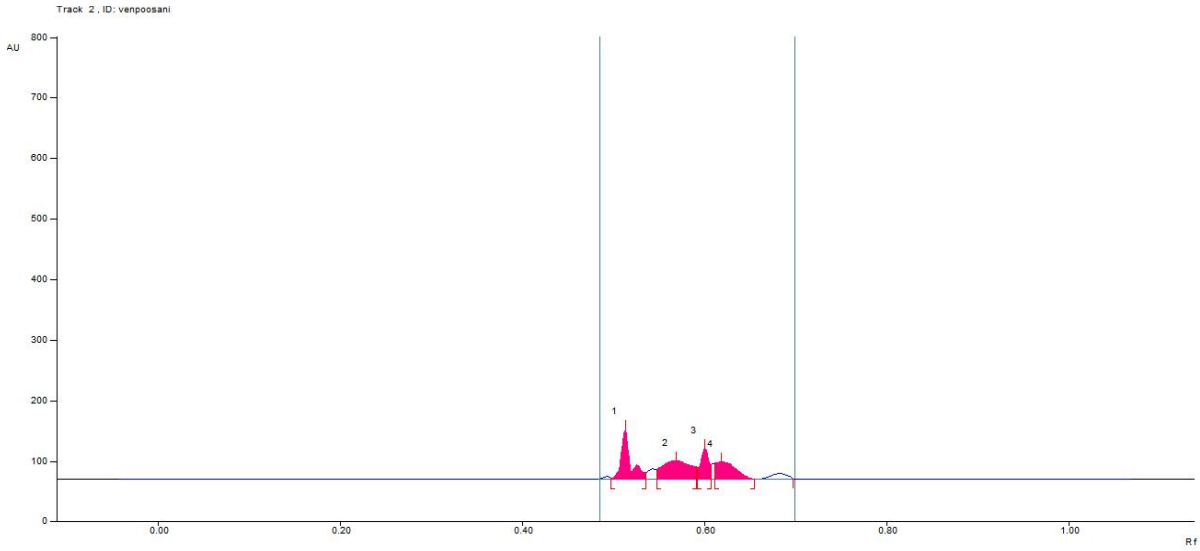
Standard – G2, G1, B2 & B1; Test sample



HPTLC finger print of Standard at 366nm

Peak	Start Position	Start Height	Max Position	Max Height	Max %	End Position	End Height	Area	Area %
1	0.49 Rf	0.2 AU	0.52 Rf	44.0 AU	7.69 %	0.54 Rf	29.8 AU	959.7 AU	7.12 %
2	0.54 Rf	29.8 AU	0.57 Rf	131.7 AU	23.02 %	0.59 Rf	45.6 AU	3244.1 AU	24.05 %
3	0.59 Rf	46.3 AU	0.61 Rf	98.1 AU	17.15 %	0.63 Rf	87.8 AU	2014.7 AU	14.94 %
4	0.63 Rf	88.5 AU	0.66 Rf	298.3 AU	52.15 %	0.70 Rf	0.4 AU	7269.1 AU	53.89 %

Rf value of Standard at 366nm



HPTLC finger print of Test sample at 366nm

Peak	Start Position	Start Height	Max Position	Max Height	Max %	End Position	End Height	Area	Area %
1	0.50 Rf	2.1 AU	0.51 Rf	83.1 AU	43.08 %	0.54 Rf	10.9 AU	702.9 AU	28.90 %
2	0.55 Rf	16.5 AU	0.57 Rf	30.3 AU	15.69 %	0.59 Rf	20.1 AU	796.4 AU	32.75 %
3	0.59 Rf	19.7 AU	0.60 Rf	51.3 AU	26.59 %	0.61 Rf	23.9 AU	399.7 AU	16.44 %
4	0.61 Rf	26.3 AU	0.62 Rf	28.2 AU	14.64 %	0.66 Rf	0.0 AU	533.0 AU	21.92 %

Rf value of Test sample at 366nm

Note:

Similar Rf values were seen in the standard and test sample, upon derivatization with isopropyl alcohol and conc. $H_2 SO_4$ (9:1), the band colour changed from bluish green to yellow in Track 1 (standard) where as no colour change was seen in the Track 2 (TS) which indicated the absence of aflatoxins in the Test sample.

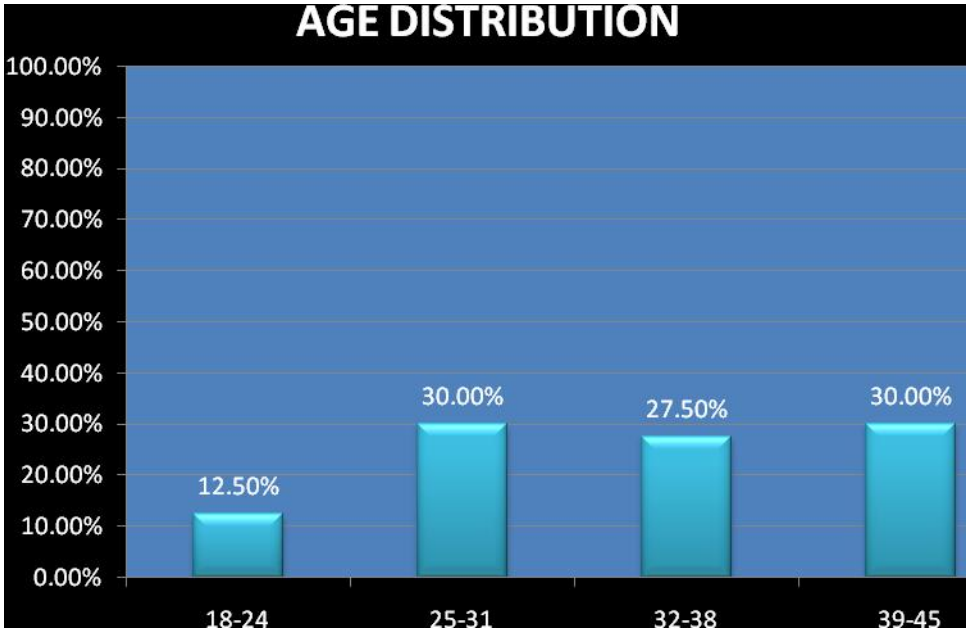
OBSERVATION AND RESULTS CLINICAL STUDY

The observation and results were studied and tabulated under the following heading.

1) Age Distribution
2) Occupational Status
3) Family History
4) Diet Habits
5) Thinai Reference
6) Kaalam Distribution
7) Yakkai Ilakkanam (Physical Constitution)
8) Gunam Reference
9) Duration of Illness
10) Distributions of Muth Thodam (Tri Humours)
11) Udal Kattukkal Reference
12) En Vagai Thervugal
13) Neerkkuri, Neikkuri Reference
14) Haematology General report
15) Haematology Biochemistry report
16) Urine Analysis
17) Sperm Analysis
18) DSSC Score Before and After Treatment
19) Results DSSC Score Before and After Treatment
20) Results after OPD Treatment
21) Result after Psycho-education / Counselling therapy
22) Statistical Significance of Treatment (Clinical Trial)
23) Statistical Significance of Psycho-education / Counselling

1) Age Distribution

Sl. No	Age	No of Cases	Percentage
1	18 - 24	5	12.5 %
2	25 - 31	12	30.0 %
3	32 - 38	11	27.5 %
4	39 - 45	12	30.0 %

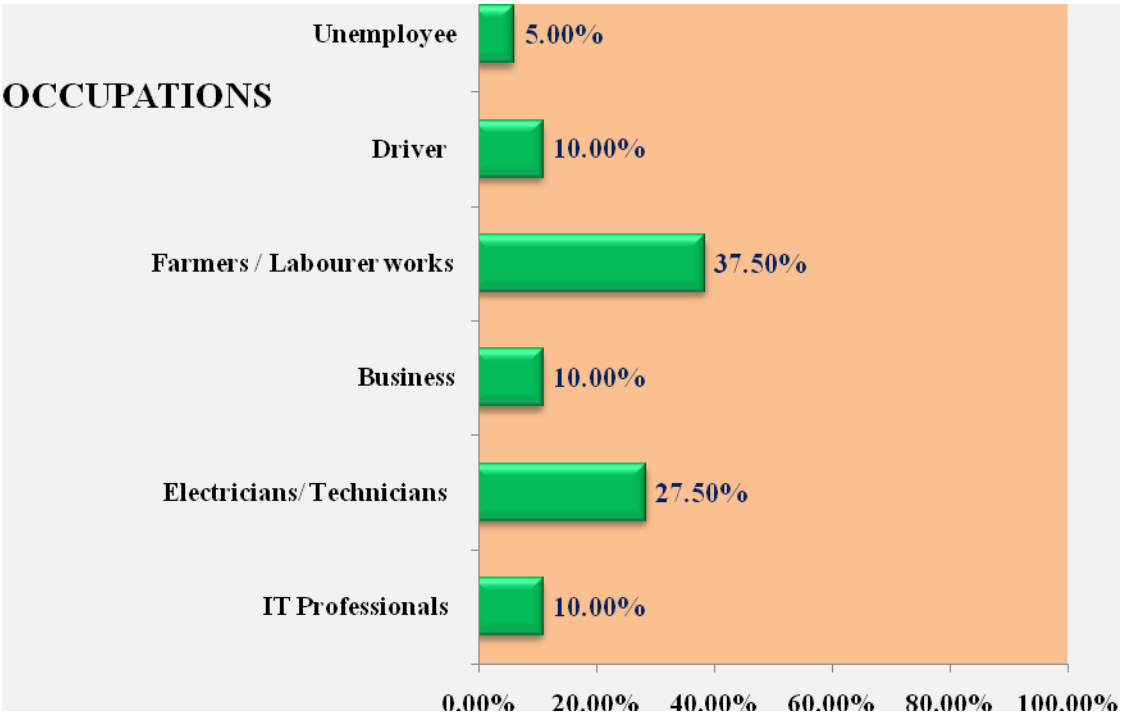


Observation:

The patients were selected from all age groups as given above and the maximum numbers of patients [12 (30%)] were in the age groups between 18 – 24 and 32 - 38.

2) Occupational Status

Sl. No	Nature of Work	No. of Cases	Percentage
01	IT Professionals	04	10.0 %
02	Electricians/ Technicians	11	27.5 %
03	Business	04	10.0 %
04	Farmers / Labourer works	15	37.5 %
05	Driver	04	10.0 %
09	Unemployee	02	05.0 %



Observation:

The majority of patients in this study were in the group of Farmers and manual labour workers 15 cases (37.5%).

3) Family History

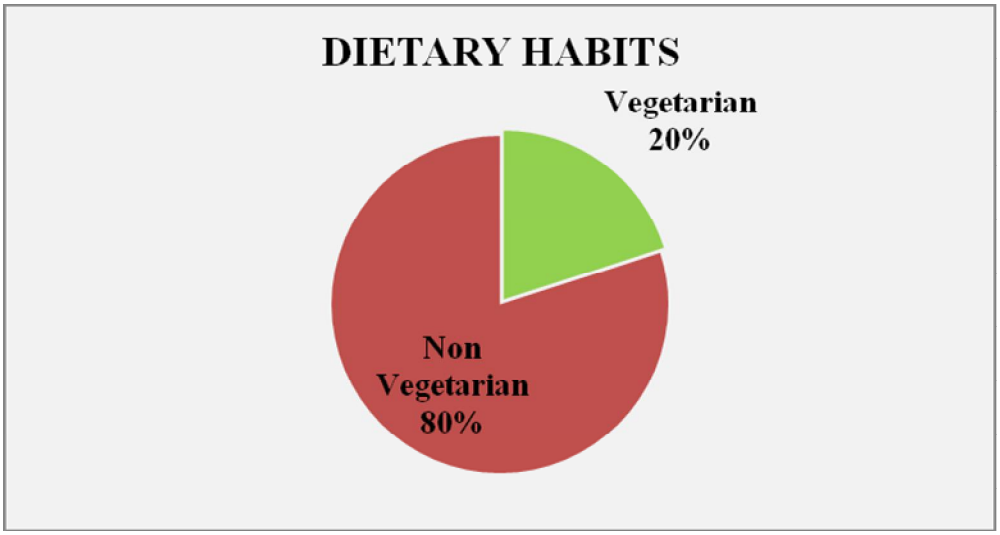
Sl. No.	Criteria	No. of Cases	Percentage
01	Family History (Relevant)	00	00 %
02	Family History (No relevant)	40	100 %

Observation:

All the patients having no relevant family history in this regards of *Ven Neer Noi* (Dhat Syndrome).

4) Dietary Habits

Sl. No.	Dietary Habits	No. of Cases	Percentage
1	Vegetarian	08	20 %
2	Non Vegetarian	32	80 %

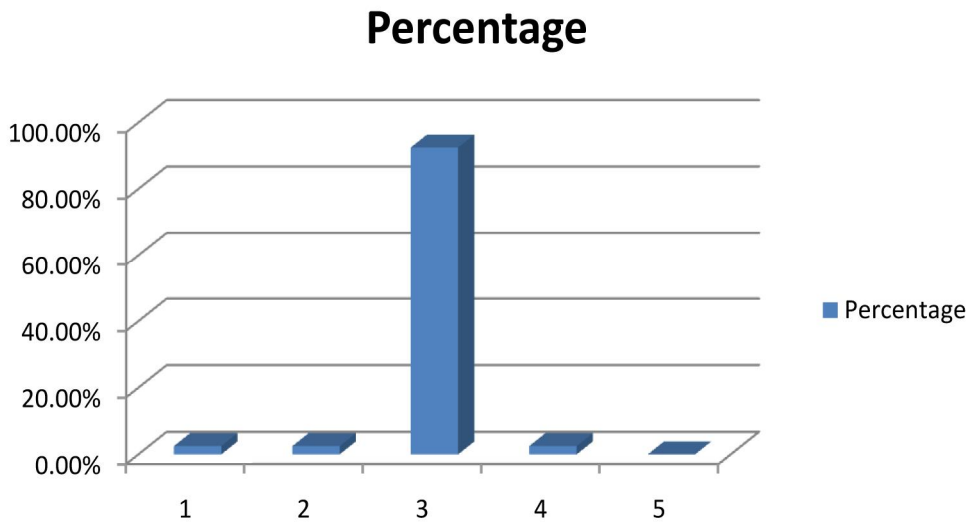


Observation:

32 (80 %) of the patients were having habits of Non-Vegetarians.

5) Thinai Reference

Sl. No	Thinai	No. of Cases	Percentage
1	Kurinji (Hill Area)	01	02.5 %
2	Mullai (Forest Area)	01	02.5 %
3	Marutham (Fertile Land)	37	92.5 %
4	Neithal (Coastal Area)	01	02.5 %
5	Paalai (Desert Land)	00	00 %

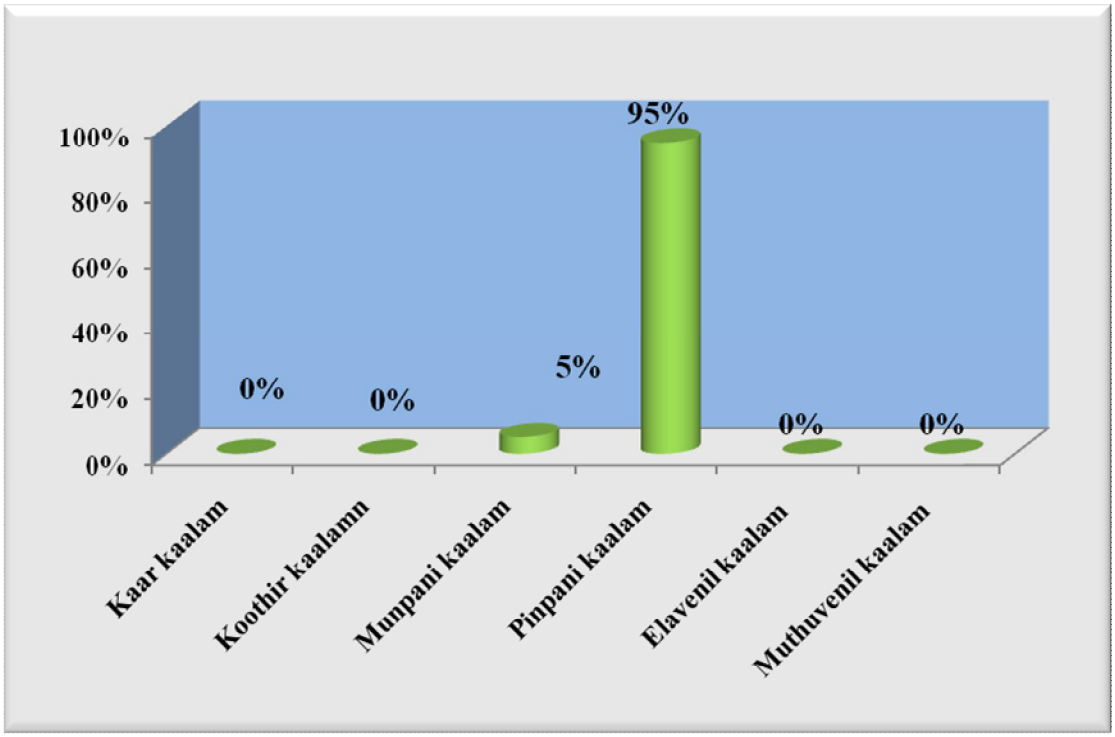


Observation:

92.5 % of the patients were from *Marutham Nilam* (Fertile land) and the remaining (2.5%) from *Kurinchi Nilam* (Hill Area), 2.5 % from *Mullai Nilam* (Forest Area) and 2.5 from *Neithal Nilam* (Coastal Area). No one of the patients was from *Paalai Nilam* (Desert Land).

6) Kaalam Distribution

Sl No	Kaalam	No. of Cases	Percentage
1	Kaar kaalam	00	00 %
2	Koothir kaalamn	00	00 %
3	Munpani kaalam	02	05 %
4	Pinpani kaalam	38	95 %
5	Elavenil kaalam	00	00 %
6	Muthuvenil kaalam	00	00 %

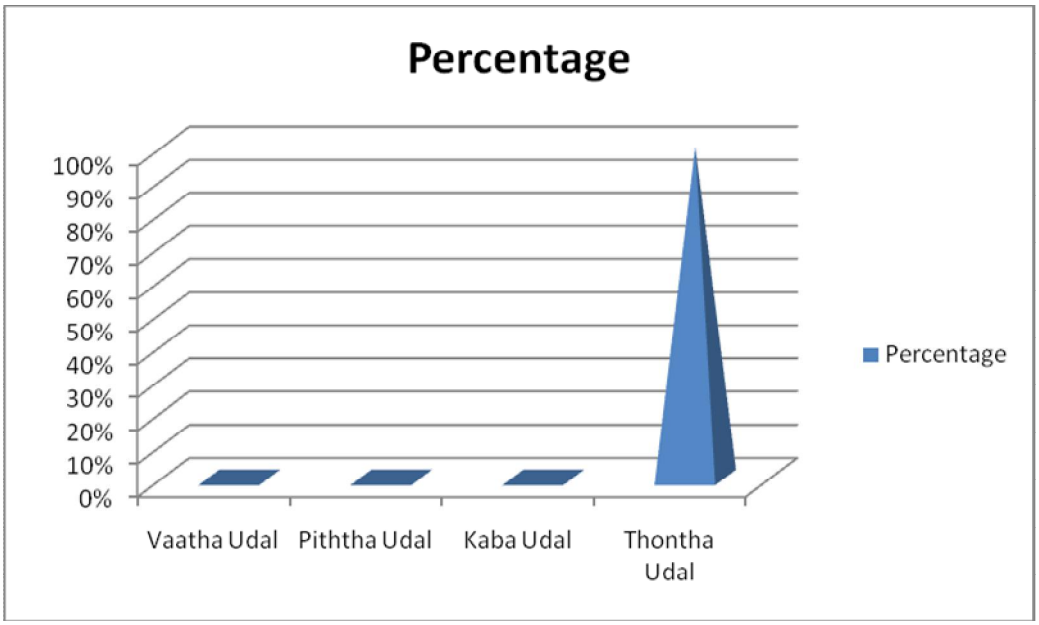


Observations

38 (95 %) patients received the treatment from the period of *Pinpani kaalam*, 02 (5%) were received the treatment from *Munpani kaalam.*

7) Yaakai Ilakkanam (Physical Constitution)

Sl. No	Yaakai Ilakkanam	No. of Cases	Percentage
1	Vaatha Udal	0	00 %
2	Piththa Udal	0	00 %
3	Kaba Udal	0	00 %
4	Thontha Udal	40	100 %

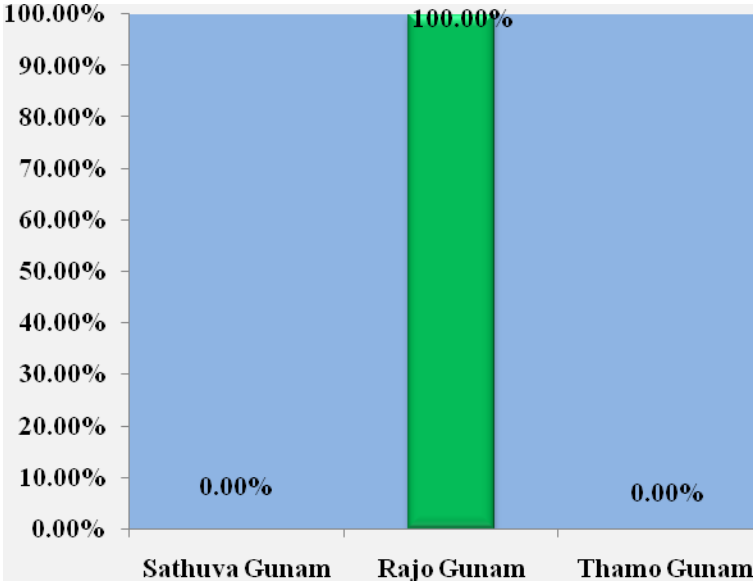


Observation:

40 (100 %) of the patients were constituents of the body is *Thontha Udal* .

8) Gunam (Quality and Characters)

Sl. No	Gunam	No. of Cases	Percentage
1	Sathuva Gunam	00	00 %
2	Rajo Gunam	40	100 %
3	Thamo Gunam	00	00 %

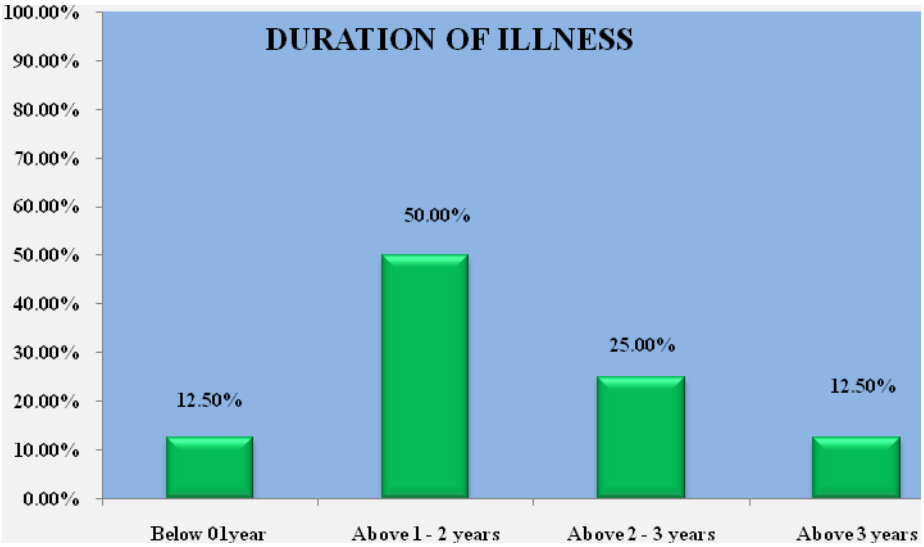


Observation:

All of the patients 40 (100 %) had "*Rajo Gunam*". *Patients were having Sathuva Gunam and Thamo Gunam* not appeared.

09) Duration of Illness

Sl. No	Duration of Illness	No of Cases	Percentage
1.	Below 01year	05	12.5 %
2.	Above 1 - 2 years	20	50.0 %
3.	Above 2 - 3 years	10	25.0 %
4.	Above 3 years	05	12.5 %



Observation:

50 % (20) of the patients were suffering with the illness between above 01 year to 02 years, 25% (10) were in the division of above 02 years to 03 years and 12.5 % (05) were below 01 year and above 3 years.

10) Distribution of *Mukkutram*

The derangements of *Vaatham, Piththam* and *Kabam* in *Venneer Noi* are as follows

Vaatham

Sl. No	Classification of *Vaatham*	No of Cases	Percentage
1	*Praanan*	00	00 %
2	*Abaanan*	05	12.5 %
3	*Udhaanan*	00	00%
4	*Samaanan*	40	100 %
5	*Viyaanan*	40	100 %
6	*Naagan*	00	00 %
7	*Koorman*	00	00 %
8	*Kirukaran*	00	00 %
9	*Devathaththan*	00	00 %
10	*Dananjayan*	00	00 %

Observations

Samanan and *Viyaanan* were affected in 40 (100 %) cases and Abanan were affected in 05 (12.5 %) cases.

Piththam

Sl. No	Classification of *Piththam*	No. of Cases	Percentage
1	*Analakam*	34	85.0 %
2	*Ranjakam*	00	00.0 %
3	*Saathakam*	00	00.0 %
4	*Prasakam*	00	00.0 %
5	*Alosakam*	03	07.5 %

Observation:

Analakam - 34 (85 %) and *Alosakam* - 03 (07.5 %) were affected.

11) *Udal Kattukkal*

Sl. No	*UdarKattukkl*	No of Cases	Percentage
1	*Saaram*	40	100.0 %
2	*Senneer*	00	100.0 %
3	*Oon*	00	00.0 %
4	*Kozhuppu*	00	00.0 %
5	*Enbu*	00	00.0 %
6	*Moolai*	00	00.0 %
7	*Sukkilam*	40	100.0 %

Observation:

Among 40 patients, *Saaram* and *Sukkilam* were affected in all the cases. **12)**

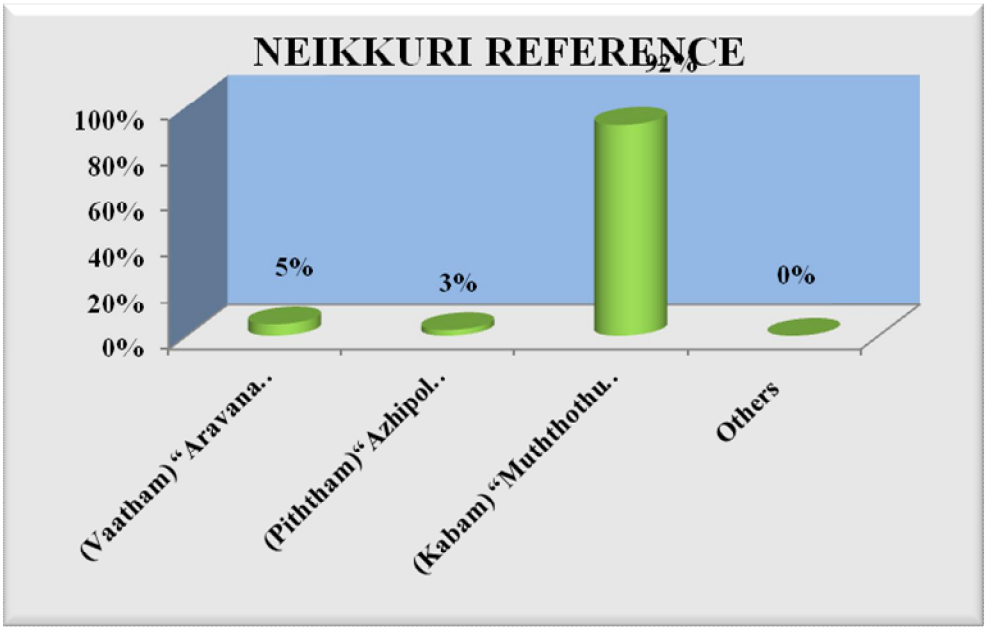
Envagai Thervugal

Sl. No	*Envagai Thervugal*	No. of Cases	Percentage
1	*Naadi*		
	a. Vaatha piththam	08	20 %
	b. Piththa vaatham	28	70 %
	c. Kabha vaatham	02	05 %
	d. Kaba piththam	02	05 %
2	*Sparisam*	00	00.0 %
3	*Naa*	00	00.0 %
4	*Niram*	00	00.0 %
5	*Mozhi*	00	00.0 %
6	*Vizhi*	00	00.0 %
7	*Malam*	00	00.0 %

In *Envagai thervugal*, the *Naadinadai* seen in *Venneer Noi* patients were *Pithavaatham* was affected in 28 (70 %), *Vaathapitham* was affected in 08 (20 %), *Kabhavaatham* and *Kabhapiththam* were affected in same number as 02 (05 %). The rest of the other elements of *Envagai thervukal* were not affected.

13) *Neerkkuri, Neikkuri* Reference

Sl. No	Type of Test	No. of Cases	Percentage
1	***Neerkkuri:***		
	" Niram" Pale yellow	40	100.0 %
2	***Neikkuri:***		
	(Vaatham) "Aravana Neendal"	02	05.0 %
	(Piththam)"Azhipol Paraviyathu"	01	02.5 %
	(Kabam) "Muththothu ninrathu"	37	92.5 %



Observations

Neikkuri

Among the 40 patients, *Kabha neer* was found for 37 (92 %) cases, Vatha neer was found in 02 (05%) and Piththa neer was found in 01 (03%) of the patients.

14) General Parameters:

Before treatment- Haematology

S. No	OP No	Age / Sex	B.Sugar mg/dl		Hb gms%	TC cu/mm	DC %			ESR mm/hr		T.RBC Million
			FA	PP			P	L	Mix	½ hr	1 hr	
1.	I 54876	41/M	72	91	14.0	10700	77	18	05	10	22	5.6
2.	I 54994	21/M	70	98	14.9	7400	54	40	05	02	04	5.4
3.	I 57150	40/M	104	102	15.1	8700	71	25	04	16	32	5.1
4.	I 59186	26/M	91	124	14.9	5000	58	36	06	02	04	5.5
5.	I 67704	35/M	107	128	15.7	7500	55	40	05	08	10	6.0
6.	I 66344	30/M	105	103	16.4	7100	60	35	05	02	06	5.2
7.	I 69530	25/M	102	109	15.8	8700	60	34	06	04	08	5.2
8.	G 81198	42/M	106	104	16.6	6000	75	21	04	10	18	5.3
9.	I 69360	20/M	93	123	16.1	11400	70	25	05	02	06	5.6
10.	I 69787	24/M	99	102	15.9	6800	60	30	10	04	08	5.6
11.	I 70432	44/M	97	110	15.0	6100	50	44	06	06	12	5.5
12.	I 69649	25/M	104	118	15.3	4200	55	40	05	02	04	5.0
13.	H 19244	33/M	108	129	15.4	6900	66	28	06	02	04	5.2
14.	I 64804	35/M	85	129	16.0	7700	60	33	07	08	16	5.7
15.	I 67741	45/M	97	115	14.3	5700	65	30	05	12	20	4.9
16.	I 72642	37/M	103	117	16.1	6100	57	37	06	02	04	5.4
17.	I 73943	40/M	98	111	15.0	6300	60	33	07	06	12	5.2
18.	I 72640	29/M	101	98	15.0	9800	62	32	06	02	04	5.2
19.	I 71749	38/M	94	135	16.2	7400	55	37	08	06	14	5.3
20.	I 74260	22/M	109	112	14.6	6400	50	41	09	06	12	5.2

14) General Parameters: Before treatment- Haematology

S. No	OP No	Age/ Sex	B.Sugar mg/dl		Hb gms%	TC cu/mm	DC %			ESR mm/hr		T.RBC Million
			FA	PP			P	L	Mix	½ hr	1 hr	
21.	I 75150	40/M	103	117	16.1	6300	63	31	06	02	06	5.7
22.	I 74213	29/M	101	130	15.1	7700	60	33	07	12	14	5.0
23.	I 77344	29/M	85	103	15.6	5000	55	38	07	02	04	3.5
24.	I 75190	26/M	103	120	16.6	6500	63	31	06	04	08	5.2
25.	I 74820	35/M	105	123	16.7	5500	50	41	09	12	14	5.4
26.	I 74076	40/M	105	124	14.8	8300	58	39	03	06	10	4.8
27.	I 77019	29/M	107	135	15.0	5500	51	43	06	02	06	4.8
28.	I 75565	23/M	95	100	16.6	7000	61	31	08	12	14	5.7
29.	I 74271	32/M	108	125	15.7	10700	55	40	05	02	04	5.9
30.	I 80234	41/M	92	95	16.4	4600	60	36	04	12	14	5.7
31.	I 80094	32/M	80	124	16.6	7900	60	33	07	02	06	5.6
32.	I 80098	40/M	89	106	14.3	5300	60	30	10	02	04	4.8
33.	I 76162	26/M	100	105	15.7	7200	58	36	06	02	04	5.4
34.	I 80524	41/M	103	107	16.1	7400	70	25	05	04	10	5.0
35.	I 80174	33/M	89	107	15.1	10600	65	30	05	02	04	5.1
36.	I 81946	36/M	82	130	15.2	8600	60	36	04	12	14	5.3
37.	F 78386	28/M	85	95	14.5	6300	60	38	02	08	14	5.0
38.	I 81785	30/M	108	120	15.3	8000	50	44	06	06	10	5.0
39.	E 19088	35/M	88	109	16.8	10200	70	25	05	06	12	5.7
40.	I 80114	44/M	106	126	14.6	10000	55	35	10	06	12	4.9

After treatment- Haematology

S.No	OP No	Age/ Sex	B.Sugar mg/dl		Hb gms%	TC cu/mm	DC %			ESR mm/hr		T.RBC Million
			FA	PP			P	L	Mix	½ hr	1hr	
1.	I 54876	41/M	99	98	13.6	6800	61	35	04	06	12	5.6
2.	I 54994	21/M	92	126	15.1	6800	50	41	09	02	04	5.4
3.	I 57150	40/M	94	128	15.2	9500	68	28	04	04	09	5.1
4.	I 59186	26/M	89	115	15.1	5600	61	33	06	06	12	5.4
5.	I 67704	35/M	99	126	15.7	7500	55	40	05	02	06	5.8
6.	I 66344	30/M	94	130	16.4	6300	50	43	07	02	04	5.2
7.	I 69530	25/M	106	110	15.8	7800	64	32	04	03	06	5.2
8.	G 81198	42/M	88	89	16.7	6600	69	27	04	02	04	5.5
9.	I 69360	20/M	92	122	16.1	10800	60	37	03	02	04	5.6
10.	I 69787	24/M	93	106	15.9	6600	66	29	05	04	04	5.3
11.	I 70432	44/M	92	114	14.9	6000	61	33	06	08	14	5.4
12.	I 69649	25/M	92	120	15.3	4300	61	35	04	02	04	5.1
13.	H 19244	33/M	82	130	15.4	8300	70	24	06	06	12	5.1
14.	I 64804	35/M	88	114	15.7	7900	60	32	08	04	10	5.6
15.	I 67741	45/M	92	109	14.2	4600	60	36	04	10	18	4.8
16.	I 72642	37/M	98	110	16.0	6400	60	34	06	03	06	5.4
17.	I 73943	40/M	87	102	14.8	7100	62	32	06	08	18	5.2
18.	I 72640	29/M	106	116	15.0	9400	63	31	06	02	04	5.2
19.	I 71749	38/M	100	135	16.1	8600	59	33	08	04	08	5.2
20.	I 74260	22/M	88	110	14.8	6200	60	36	04	06	12	5.3

After treatment- Haematology

S.No	OP No	Age/ Sex	B.Sugar mg/dl		Hb gms%	TC cu/mm	DC %			ESR mm/hr		T.RBC Million
			FA	PP			P	L	Mix	½ hr	1 hr	
21.	I 75150	40/M	95	96	15.1	6600	60	33	07	08	16	5.6
22.	I 74213	29/M	104	130	15.2	7800	62	30	08	08	16	5.3
23.	I 77344	29/M	93	103	15.6	4700	56	36	08	06	12	5.6
24.	I 75190	26/M	110	120	16.6	6700	65	30	05	10	12	5.2
25.	I 74820	35/M	97	125	16.7	6800	60	35	05	10	20	5.4
26	I 74076	40/M	100	126	15.2	7800	60	36	04	10	14	5.2
27.	I 77019	29/M	106	124	15.4	5400	54	39	07	04	08	5.0
28.	I 75565	23/M	94	105	16.5	7400	59	35	06	10	12	5.0
29.	I 74271	32/M	110	128	16.0	7800	60	34	06	06	12	5.8
30.	I 80234	41/M	104	105	16.3	4800	52	40	08	14	20	5.7
31.	I 80094	32/M	98	132	16.8	7900	60	32	08	06	12	5.6
32.	I 80098	40/M	95	112	15.0	7800	62	30	08	08	10	5.2
33.	I 76162	26/M	105	110	16.2	7800	60	34	06	08	12	5.6
34.	I 80524	41/M	105	110	16.2	7600	70	26	04	06	12	5.2
35.	I 80174	33/M	90	110	15.2	8600	67	30	03	06	12	5.2
36.	I 81946	36/M	90	128	15.2	8400	62	34	04	06	12	5.2
37.	F 78386	28/M	90	100	14.4	6900	59	35	06	08	16	4.9
38.	I 81785	30/M	105	118	16.0	8200	54	38	08	10	14	5.1
39.	E 19088	35/M	90	125	16.8	7800	64	31	05	10	16	5.6
40.	I 80114	44/M	105	130	14.9	10300	60	34	06	06	12	4.90

15). Before Treatment Biochemistry

S. No	OP/IP No	Age/ Sex	Lipid profile					Liver Function Test											RFT	
			T.Cho Mgdl	HDL Mg/dl	LDL Mg/dl	VLDL Mg/dl	TGL Mg/dl	T. Bmg/dl	D. Bmg/dl	I.B mg/dl	SGOT u/l	SGPT u/l	ALK u/l	T.P Gms%	Alb Gms%	Glo Gms %	Cal Mg/dl	P Mg/dl	U. A Mg/dl	U mg/dl	Cr Mg/dl
1.	I 54876	41/M	146	38	98	32	185	0.9	0.3	0.6	34	71	90	7.3	4.3	3.0	9.1	3.8	5.0	17	0.9
2.	I 54994	21/M	164	48	116	22	109	1.2	0.5	0.7	18	19	63	7.0	4.3	2.7	9.1	4.2	5.1	19	0.9
3.	I 57150	40/M	170	52	114	33	163	1.1	0.4	0.7	17	42	47	7.1	4.3	2.8	11.1	3.0	5.7	20	1.0
4.	I 59186	26/M	173	36	125	23	113	2.0	0.7	1.3	19	27	73	6.1	3.8	2.3	11.0	3.9	5.1	12	0.9
5.	I 67704	35/M	214	53	123	37	210	0.4	0.1	0.3	23	34	88	7.0	4.1	2.9	10.0	4.0	5.7	20	1.0
6.	I 66344	30/M	230	60	132	34	222	1.5	0.6	0.9	22	27	97	7.1	4.4	2.7	9.6	4.5	5.3	20	1.0
7.	I 69530	25/M	161	42	112	24	165	1.0	0.5	0.5	17	17	89	6.5	4.1	2.4	8.8	3.9	4.9	19	1.2
8.	G 81198	42/M	141	42	95	32	187	1.8	1.0	0.8	14	14	52	6.7	4.4	2.3	9.8	3.4	3.3	15	0.9
9.	I 69360	20/M	141	38	86	34	210	0.8	0.3	0.5	12	13	67	6.6	4.2	2.4	7.1	3.3	5.7	13	1.1
10.	I 69787	24/M	203	57	142	27	189	0.8	0.3	0.5	16	23	69	7.1	4.7	2.4	8.2	4.6	3.4	17	1.2
11.	I 70432	44/M	153	38	104	41	210	0.6	0.2	0.4	16	30	85	7.8	4.6	3.2	8.6	4.2	3.7	23	1.2
12..	I 69649	25/M	151	45	103	34	172	0.6	0.2	0.4	13	16	48	7.2	4.7	2.5	8.7	4.7	5.8	13	1.0
13.	H 19244	33/M	125	36	98	42	208	0.5	0.2	0.3	14	33	79	6.2	4.2	3.0	7.1	4.2	5.1	20	1.0
14.	I 64804	35/M	147	41	103	27	156	0.6	0.2	0.4	19	31	73	7.4	4.3	3.1	8.1	4.5	5.9	15	0.8
15.	I 67741	45/M	174	47	123	25	125	0.8	0.3	0.5	18	16	60	7.2	4.6	3.6	8.4	4.8	3.5	24	1.0
16.	I 72642	37/M	178	51	118	22	176	1.3	0.6	0.7	13	18	72	6.9	4.6	2.3	10.7	3.3	4.5	20	0.9
17.	I 73943	40/M	182	48	97	24	122	1.6	0.6	1.0	39	33	50	6.6	4.1	2.5	8.1	3.3	5.5	23	1.0
18.	I 72640	29/M	213	47	127	38	187	0.7	0.3	0.4	14	17	58	8.0	4.9	3.3	8.4	3.4	3.8	16	0.9
19.	I 71749	38/M	204	62	130	32	167	1.3	0.6	0.7	16	15	74	7.4	4.4	3.0	8.5	4.6	7.5	41	1.0
20.	I 74260	22/M	213	54	123	34	172	0.6	0.2	0.4	11	20	59	7.1	4.5	2.6	9.1	4.7	2.6	13	1.1

Before Treatment Biochemistry

S. No	OP/IP No	Age/ Sex	Lipid profile					Liver Function Test												RFT	
			T.Cho Mgdl	HDL Mg/ dl	LDL Mg/d l	VL DL Mg /dl	TGL Mg/ dl	T.B mg /dl	D. Bm g/d l	I.B mg /dl	SG OT u/l	SG PT u/l	AL K u/l	T.P G ms %	Al b G ms %	Glo Gm s %	Cal Mg/ dl	P Mg /dl	U.A Mg/ dl	U mg/ dl	Cr Mg/ dl
21.	I 75150	40/M	162	57	79	29	44	0.9	0.4	0.5	17	21	54	7.4	4.3	3.1	9.3	4.9	3.0	18	1.1
22.	I 74213	29/M	187	55	112	22	111	1.0	0.4	0.6	17	27	58	6.8	3.8	3.0	9.1	4.1	3.4	17	1.0
23.	I 77344	29/M	202	37	122	24	121	0.9	0.4	0.5	20	16	67	7.4	4.2	3.2	8.8	4.9	3.1	35	1.0
24.	I 75190	26/M	182	30	80	49	149	1.3	0.5	0.8	13	13	61	6.2	3.2	3.0	9.2	4.4	3.1	13	1.2
25.	I 74820	35/M	176	36	112	35	134	0.5	0.2	0.3	17	25	54	7.1	3.8	3.3	9.0	4.8	5.3	10	0.9
26.	I 74076	40/M	132	39	83	13	63	0.3	0.1	0.2	17	26	124	7.3	4.4	2.9	9.0	4.4	6.2	17	1.1
27.	I 77019	29/M	218	50	124	52	158	0.7	0.3	0.4	14	15	42	6.2	3.7	3.3	9.2	5.2	5.7	24	1.1
28.	I 75565	23/M	195	38	101	17	86	1.4	0.6	0.8	12	15	63	7.0	4.0	3.0	10.2	3.4	4.6	15	1.1
29.	I 74271	32/M	186	37	107	23	115	0.5	0.2	0.3	34	40	100	7.0	4.0	3.0	9.8	3.4	4.6	20	1.1
30.	I 80234	41/M	168	36	88	32	160	0.8	0.3	0.5	08	10	56	6.0	4.0	2.0	9.7	3.5	3.8	21	1.3
31.	I 80094	32/M	145	34	86	50	148	0.7	0.3	0.4	14	20	69	7.9	4.9	3.0	9.3	3.9	5.1	17	1.1
32.	I 80098	40/M	183	46	107	20	128	0.8	0.5	0.3	13	11	38	7.9	4.4	3.5	9.0	4.4	5.5	24	1.1
33.	I 76162	26/M	199	44	122	21	105	1.2	0.7	0.5	17	15	50	7.6	4.2	3.4	9.2	4.7	4.6	24	1.1
34.	I 80524	41/M	219	60	119	39	196	0.6	0.2	0.4	21	31	64	7.8	3.9	3.9	10.6	3.2	5.5	23	1.2
35.	I 80174	33/M	227	53	124	13	66	0.9	0.3	0.6	20	40	73	7.1	3.6	3.5	9.8	4.8	4.0	32	1.1
36.	I 81946	36/M	165	41	91	52	158	0.3	0.1	0.2	14	17	71	7.8	4.6	3.2	9.9	4.0	4.4	29	1.1
37.	F 78386	28/M	165	48	91	21	106	0.5	0.2	0.3	10	06	60	6.8	3.8	3.0	10.2	4.0	3.4	14	1.2
38.	I 81785	30/M	200	54	114	37	183	0.9	0.4	0.5	12	17	55	7.7	4.4	3.3	8.9	4.3	3.7	27	0.9
39.	E 19088	35/M	188	30	90	33	144	1.0	0.4	0.6	26	35	53	6.8	3.7	3.1	9.0	4.1	3.4	32	1.2
40.	I 80114	44/M	156	32	102	30	150	0.6	0.2	0.4	32	35	46	6.3	3.3	3.0	9.0	4.2	3.1	26	1.0

Biochemistry after Treatment

S. No	OP/IP No	Age/ Sex	Lipid profile					Liver Function Test												RFT	
			T.Cho Mg/dl	HDL Mg/dl	LDL Mg/dl	VLDL Mg/dl	TGL Mg/dl	T. Bmg/dl	DB mg/dl	IB mg/dl	SGOT u/l	SGPT u/l	ALK u/l	T.P Gms%	Alb Gms%	Glo Gms %	Cal Mg/dl	P Mg/dl	U. A Mg/dl	U mg/dl	Cr Mg/dl
1.	I 54876	41/M	144	40	89	48	160	0.3	0.1	0.2	26	36	77	7.8	4.5	3.3	9.3	3.6	4.2	15	0.9
2.	I 54994	21/M	189	40	120	35	140	0.9	0.5	0.4	13	10	55	7.2	4.5	2.7	9.3	4.5	4.2	23	1.0
3.	I 57150	40/M	156	60	92	17	85	0.9	0.4	0.5	20	25	47	8.4	5.1	3.3	8.0	3.4	4.6	22	1.2
4.	I 59186	26/M	192	30	117	24	102	1.2	0.5	0.7	21	23	76	5.8	2.8	3.0	9.2	3.9	5.4	13	1.0
5.	I 67704	35/M	222	62	121	48	156	0.4	0.2	0.2	23	28	72	7.9	4.7	3.2	9.2	3.3	4.5	20	1.1
6.	I 66344	30/M	259	73	133	48	167	1.3	0.8	0.5	21	20	93	8.0	4.9	3.1	8.0	3.6	4.6	23	1.0
7.	I 69530	25/M	174	51	106	31	154	1.0	0.4	0.6	16	17	86	7.3	4.3	3.0	8.5	3.0	5.0	20	1.1
8.	G 81198	42/M	136	42	80	35	176	1.2	0.7	0.5	16	15	48	7.2	4.5	2.7	9.0	2.4	4.2	15	0.9
9.	I 69360	20/M	131	50	71	34	169	0.8	0.4	0.4	14	11	71	7.4	4.7	2.7	9.2	2.9	5.4	13	1.0
10.	I 69787	24/M	174	61	67	12	58	1.1	0.7	0.4	21	27	75	7.0	4.6	2.4	8.7	3.4	2.8	18	1.2
11.	I 70432	44/M	149	41	89	46	187	0.7	0.3	0.4	19	28	97	8.3	4.7	3.6	8.9	3.3	3.5	21	1.2
12..	I 69649	25/M	173	60	101	39	196	0.7	0.3	0.4	25	33	51	7.4	4.7	2.7	7.5	3.1	4.7	22	1.2
13.	H 19244	33/M	133	36	77	46	167	0.6	0.2	0.4	24	35	88	7.2	4.2	3.0	8.0	3.6	5.1	12	1.0
14.	I 64804	35/M	141	42	87	40	156	0.4	0.3	0.1	28	28	67	7.3	4.3	3.0	8.0	2.5	4.6	13	0.9
15.	I 67741	45/M	210	61	122	36	160	0.9	0.4	0.5	19	10	52	7.9	4.8	3.0	9.6	3.8	3.7	21	1.0
16.	I 72642	37/M	177	50	111	19	159	1.2	0.6	0.6	15	19	80	7.5	4.6	2.9	8.4	2.4	2.2	29	1.0
17.	I 73943	40/M	169	41	100	22	113	1.2	0.6	0.6	27	34	57	6.8	4.2	2.6	7.6	3.3	5.1	28	1.0
18.	I 72640	29/M	222	44	135	54	131	0.7	0.3	0.4	17	14	73	7.9	4.7	3.2	9.0	2.8	4.2	15	1.0
19.	I 71749	38/M	186	53	108	22	111	1.2	0.6	0.6	20	17	101	7.5	4.5	3.0	8.3	4.5	2.6	24	1.0
20.	I 74260	22/M	202	52	140	32	156	0.6	0.3	0.3	12	10	84	7.0	4.4	2.6	9.2	4.2	5.2	16	1.1

Biochemistry after Treatment

S. No	OP/IP No	Age/ Sex	Lipid profile					Liver Function Test											RFT	
			T.Cho Mgdl	HDL Mg/dl	LDL Mg/dl	VLDL Mg/dl	TGL Mg/dl	T. Bmg/dl	D. Bmg/dl	I.B mg/dl	SGOT u/l	SGPT u/l	ALK u/l	T.PGms %	AlbGms %	Glo Gms %	Cal Mg/dl	P Mg/dl	U.A Mg/dl	U mg/dl	Cr Mg/dl
21.	I 75150	40/M	187	52	97	27	160	0.8	0.3	0.5	20	17	84	7.2	3.5	3.5	9.8	4.3	7.2	20	1.1
22.	I 74213	29/M	187	55	98	22	111	1.0	0.4	0.6	18	30	78	6.8	3.8	3.0	9.1	4.1	3.4	20	1.0
23.	I 77344	29/M	202	37	112	24	121	0.6	0.3	0.3	28	12	83	7.4	4.2	3.2	8.8	4.9	3.1	30	1.0
24.	I 75190	26/M	182	30	80	49	179	1.2	0.6	0.6	15	16	80	6.2	3.2	3.0	9.2	4.4	3.1	15	1.2
25.	I 74820	35/M	140	52	86	29	168	0.4	0.2	0.2	20	30	86	6.2	4.2	2.0	10.1	3.2	5.9	17	0.9
26.	I 74076	40/M	224	46	136	57	136	0.3	0.1	0.1	17	28	115	7.3	4.6	2.7	8.5	4.3	7.5	18	1.1
27.	I 77019	29/M	186	34	87	22	92	0.4	0.3	0.1	14	16	41	6.8	4.4	2.4	9.6	4.2	5.1	24	1.1
28.	I 75565	23/M	186	34	87	22	92	1.2	0.6	0.6	15	12	89	6.8	4.4	2.4	9.6	4.2	5.1	16	1.1
29.	I 74271	32/M	196	24	89	29	152	0.5	0.2	0.3	30	32	105	6.7	4.0	2.8	9.0	3.2	5.1	22	1.1
30.	I 80234	41/M	157	34	90	34	172	0.7	0.3	0.4	08	11	62	6.2	4.2	2.0	9.4	3.6	4.2	19	1.1
31.	I 80094	32/M	160	38	80	47	161	0.9	0.4	0.5	17	18	75	6.2	3.4	2.8	9.8	3.2	5.1	19	1.1
32.	I 80098	40/M	164	40	89	27	101	0.6	0.3	0.3	14	15	80	6.0	3.8	2.2	9.1	3.2	4.8	26	1.1
33.	I 76162	26/M	209	38	137	30	150	1.2	0.7	0.5	20	15	80	7.3	4.2	3.1	8.4	4.9	4.7	25	1.1
34.	I 80524	41/M	190	69	100	40	160	0.6	0.2	0.4	21	30	80	6.2	3`2	3.0	9.8	3.4	4.7	25	1.2
35.	I 80174	33/M	221	53	135	31	153	0.9	0.4	0.5	21	35	82	7.1	3.6	3.5	9.0	3.4	4.5	30	1.1
36.	I 81946	36/M	167	47	82	40	150	0.4	0.2	0.2	16	18	88	6.6	3.8	2.8	10	4.2	5.1	30	1.1
37.	F 78386	28/M	145	39	84	31	154	0.6	0.3	0.3	12	10	68	7.7	4.6	3.1	8.8	4.2	4.5	11	1.0
38.	I 81785	30/M	196	42	117	47	168	0.9	0.4	0.5	14	16	80	7.4	4.3	3.0	7.9	4.5	3.1	30	0.9
39.	E 19088	35/M	188	30	90	33	144	0.6	0.3	0.3	30	32	80	6.8	3.7	3.1	9.0	4.1	3.4	23	1.1
40.	I 80114	44/M	156	32	102	30	150	0.5	0.2	0.3	27	32	80	6.3	3.3	3.0	9.0	4.2	3.1	34	1.0

16). Before treatment – Urine analysis

S.NO	OP/IP No	Age/ Sex	Alb	Sugar		Deposit	Neerkkuri	Neikkuri
				F	PP			
1.	I 54876	41/M	Nil	Nil	Nil	1-2Pc,1-2Ec	Pale Yellow	Slowly spread
2.	I 54994	21/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Slowly spread
3.	I 57150	40/M	Nil	Nil	Nil	2-3Pc,2-4Ec	Pale Yellow	Slowly spread
4.	I 59186	26/M	Nil	Nil	Nil	2-4Pc,3-4Ec	Pale Yellow	Slowly spread
5.	I 67704	35/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Slowly spread
6.	I 66344	30/M	Nil	Nil	Nil	2-3Pc,4-6Ec	Pale Yellow	Fastly spread
7.	I 69530	25/M	Nil	Nil	Nil	1-2Pc,1-3Ec	Pale Yellow	Not spread
8.	G 81198	42/M	Nil	Nil	Nil	3-5Pc,2-4Ec	Pale Yellow	Slowly spread
9.	I 69360	20/M	Nil	Nil	Nil	2-4Pc,2-3Ec	Pale Yellow	Fastly spread
10.	I 69787	24/M	Nil	Nil	Nil	4-5Pc,2-3Ec	Pale Yellow	Slowly spread
11.	I 70432	44/M	Nil	Nil	Nil	2-3Pc,2-3Ec	Pale Yellow	Slowly spread
12..	I 69649	25/M	Nil	Nil	Nil	1-2Pc,2-4Ec	Pale Yellow	Not spread
13.	H 19244	33/M	Nil	Nil	Nil	2-4Pc,1-3Ec	Pale Yellow	Slowly spread
14.	I 64804	35/M	Nil	Nil	Nil	3-5Pc,2-3Ec	Pale Yellow	Fastly spread
15.	I 67741	45/M	Nil	Nil	Nil	2-4Pc,3-5Ec	Pale Yellow	Slowly spread
16.	I 72642	37/M	Nil	Nil	Nil	2-4Pc,1-3Ec	Pale Yellow	Slowly spread
17.	I 73943	40/M	Nil	Nil	Nil	2-3Pc,4-6Ec	Pale Yellow	Fastly spread
18.	I 72640	29/M	Nil	Nil	Nil	2-3Pc,2-3Ec	Pale Yellow	Slowly spread
19.	I 71749	38/M	Nil	Nil	Nil	2-4Pc,2-3Ec	Pale Yellow	Slowly spread
20.	I 74260	22/M	Nil	Nil	Nil	4-5Pc,6-8Ec	Pale Yellow	Slowly spread

Before treatment – Urine analysis

S.NO	OP/IP No	Age/ Sex	Alb	Sugar		Deposit	Neerkuri	Neikkuri
				F	PP			
21.	I 75150	40/M	Nil	Nil	Nil	2-3Pc,2-3Ec	Pale Yellow	Slowly spread
22.	I 74213	29/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Slowly spread
23.	I 77344	29/M	Nil	Nil	Nil	2-3Pc,2-Ec	Pale Yellow	Slowly spread
24.	I 75190	26/M	Nil	Nil	Nil	2-3Pc,1-3Ec	Pale Yellow	Slowly spread
25.	I 74820	35/M	Nil	Nil	Nil	2-3Pc,1-3Ec	Pale Yellow	Slowly spread
26.	I 74076	40/M	Nil	Nil	Nil	1-2Pc,1-2Ec	Pale Yellow	Slowly spread
27.	I 77019	29/M	Nil	Nil	Nil	2-3Pc,2-3Ec	Pale Yellow	Round shape
28.	I 75565	23/M	Nil	Nil	Nil	2-4Pc2-3Ec	Pale Yellow	Not spread
29.	I 74271	32/M	Nil	Nil	Nil	1-2Pc,2-4Ec	Pale Yellow	Fastly spread
30.	I 80234	41/M	Nil	Nil	Nil	2-4Pc,2-4Ec	Pale Yellow	Slowly spread
31.	I 80094	32/M	Nil	Nil	Nil	2-3Pc,4-5Ec	Pale Yellow	Fastly spread
32.	I 80098	40/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Slowly spread
33.	I 76162	26/M	Nil	Nil	Nil	1-2Pc,2-4Ec	Pale Yellow	Slowly spread
34.	I 80524	41/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Bean shape
35.	I 80174	33/M	Nil	Nil	Nil	6-8Pc,2-4Ec	Pale Yellow	Slowly spread
36.	I 81946	36/M	Nil	Nil	Nil	2-3Pc,4-5Ec	Pale Yellow	Slowly spread
37.	F 78386	28/M	Nil	Nil	Nil	4-6Pc,1-2Ec	Pale Yellow	Slowly spread
38.	I 81785	30/M	Nil	Nil	Nil	2-4Pc,2-4Ec	Pale Yellow	Slowly spread
39.	E 19088	35/M	Nil	Nil	Nil	2-4Pc,2-4Ec	Pale Yellow	Slowly spread
40.	I 80114	44/M	Nil	Nil	Nil	2-4Pc,3-4Ec	Pale Yellow	Not spread

After treatment – Urine analysis

S.NO	OP/IP No	Age/ Sex	Alb	Sugar		Deposit	Neerkuri	Neikkuri
				F	PP			
1.	I 54876	41/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Slowly spread
2.	I 54994	21/M	Nil	Nil	Nil	2-3Pc1-2-Ec	Pale Yellow	Slowly spread
3.	I 57150	40/M	Nil	Nil	Nil	2-4Pc,2-4Ec	Pale Yellow	Slowly spread
4.	I 59186	26/M	Nil	Nil	Nil	4-5Pc,2-3Ec	Pale Yellow	Slowly spread
5.	I 67704	35/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Slowly spread
6.	I 66344	30/M	Nil	Nil	Nil	2-4Pc,2-4Ec	Pale Yellow	Fastly spread
7.	I 69530	25/M	Nil	Nil	Nil	2-4Pc,4-6Ec	Pale Yellow	Not spread
8.	G 81198	42/M	Nil	Nil	Nil	2-4Pc,3-5Ec	Pale Yellow	Slowly spread
9.	I 69360	20/M	Nil	Nil	Nil	1-3Pc,2-4Ec	Pale Yellow	Not spread
10.	I 69787	24/M	Nil	Nil	Nil	2-3Pc,3-5Ec	Pale Yellow	Slowly spread
11.	I 70432	44/M	Nil	Nil	Nil	1-3Pc,1-2Ec	Pale Yellow	Not spread
12..	I 69649	25/M	Nil	Nil	Nil	3-5Pc,2-4Ec	Pale Yellow	Not spread
13.	H 19244	33/M	Nil	Nil	Nil	1-2Pc,1-2Ec	Pale Yellow	Slowly spread
14.	I 64804	35/M	Nil	Nil	Nil	3-5Pc,6-8Ec	Pale Yellow	Fastly spread
15.	I 67741	45/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Slowly spread
16.	I 72642	37/M	Nil	Nil	Nil	2-4Pc,2-4Ec	Pale Yellow	Tree shape
17.	I 73943	40/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Sieve pattern
18.	I 72640	29/M	Nil	Nil	Nil	2-6Pc,3-6Ec	Pale Yellow	Slowly spread
19.	I 71749	38/M	Nil	Nil	Nil	1-2Pc 1-2Ec	Pale Yellow	Slowly spread
20.	I 74260	22/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Slowly spread

After treatment – Urine analysis

S.NO	OP/IP No	Age/ Sex	Alb	Sugar		Deposit	Neerkuri	Neikkuri
				F	PP			
21.	I 75150	40/M	Nil	Nil	Nil	1-2Pc,1-2Ec	Pale Yellow	Slowly spread
22.	I 74213	29/M	Nil	Nil	Nil	4-5Pc,2-4Ec	Pale Yellow	Sieve pattern
23.	I 77344	29/M	Nil	Nil	Nil	6-7Pc,2-4Ec	Pale Yellow	Slowly spread
24.	I 75190	26/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Fastly spread
25.	I 74820	35/M	Nil	Nil	Nil	4-5Pc,4-5Ec	Pale Yellow	Not spread
26.	I 74076	40/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Slowly spread
27.	I 77019	29/M	Nil	Nil	Nil	2-3Pc,1-2Ec	Pale Yellow	Round shape
28.	I 75565	23/M	Nil	Nil	Nil	1-2Pc,1-2Ec	Pale Yellow	Not spread
29.	I 74271	32/M	Nil	Nil	Nil	3-4Pc,2-3Ec	Pale Yellow	Round shape
30.	I 80234	41/M	Nil	Nil	Nil	3-5Pc,2-4Ec	Pale Yellow	Slowly spread
31.	I 80094	32/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Sieve pattern
32.	I 80098	40/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Kidney shape
33.	I 76162	26/M	Nil	Nil	Nil	4-5Pc,1-2Ec	Pale Yellow	Sieve pattern
34.	I 80524	41/M	Nil	Nil	Nil	1-2Pc,2-3Ec	Pale Yellow	Slowly spread
35.	I 80174	33/M	Nil	Nil	Nil	2-3Pc,2-3Ec	Pale Yellow	Slowly spread
36.	I 81946	36/M	Nil	Nil	Nil	1-2Pc,1-2Ec	Pale Yellow	Slowly spread
37.	F 78386	28/M	Nil	Nil	Nil	6-8Pc,4-6Ec	Pale Yellow	Pear shape
38.	I 81785	30/M	Nil	Nil	Nil	2-4Pc,3-5Ec	Pale Yellow	Slowly spread
39.	E 19088	35/M	Nil	Nil	Nil	4-5Pc,3-5Ec	Pale Yellow	Sieve pattern
40.	I 80114	44/M	Nil	Nil	Nil	2-4Pc,4-6Ec	Pale Yellow	Sieve pattern

17). Semen Analysis – Before Treatment

S.NO	OP NO	AGE/SEX	SPERM COUNT MILLOIN/ML		MOTILITY %		MORPHOLOGY	
			BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1.	I 54876	41/M	52	54	70	70	50	50
2.	I 54994	21/M	Nil	38	60	80	Nil	40
3.	I 57150	40/M	36	64	70	80	30	50
4.	I 59186	26/M	Nil	76	Nil	70	Nil	40
5.	I 67704	35/M	12	39	80	80	50	50
6.	I 66344	30/M	16	38	70	70	50	50
7.	I 69530	25/M	18	56	70	70	40	50
8.	G 81198	42/M	Nil	20	Nil	40	Nil	30
9.	I 69360	20/M	40	30	60	70	40	50
10.	I 69787	24/M	40	20	70	70	50	50
11.	I 70432	44/M	105	140	80	80	50	50
12..	I 69649	25/M	12	54	50	60	20	40
13.	H 19244	33/M	Nil	26	Nil	30	Nil	20
14.	I 64804	35/M	48	56	80	80	50	50
15.	I 67741	45/M	14	20	60	60	60	60
16.	I 72642	37/M	16	24	50	60	50	50
17.	I 73943	40/M	18	20	80	80	30	60
18.	I 72640	29/M	80	25	60	70	40	50
19.	I 71749	38/M	60	20	50	60	50	50
20.	I 74260	22/M	80	30	50	60	60	60

Semen Analysis Before Treatment

S.NO	OP/IP NO	AGE/SEX	SPERM COUNT/ML		MOTILITY%		MORPHOLOGY	
			BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
21.	I 75150	40/M	40	20	40	60	50	50
22.	I 74213	29/M	56	60	70	70	60	60
23.	I 77344	29/M	36	60	70	80	60	60
24.	I 75190	26/M	16	20	70	70	10	30
25.	I 74820	35/M	12	44	40	80	40	50
26.	I 74076	40/M	10	20	60	70	10	40
27.	I 77019	29/M	80	34	50	70	10	50
28.	I 75565	23/M	40	42	70	70	50	50
29.	I 74271	32/M	84	80	80	80	60	60
30.	I 80234	41/M	28	30	70	90	60	60
31.	I 80094	32/M	14	42	70	80	50	60
32.	I 80098	40/M	80	12	70	80	60	60
33.	I 76162	26/M	76	76	80	80	40	50
34.	I 80524	41/M	28	30	80	80	50	60
35.	I 80174	33/M	18	20	60	70	40	50
36.	I 81946	36/M	22	26	70	70	50	50
37.	F 78386	28/M	Nil	12	Nil	60	Nil	10
38.	I 81785	30/M	14	20	60	70	60	60
39.	E 19088	35/M	08	08	60	60	50	50
40.	I 80114	44/M	38	38	70	70	50	60

Semen Analysis After Treatment

S.NO	OP NO	AGE/SEX	VOLUME/ML		LIQUEFACTION TIME - MIN		FRUCTOSE	
			BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1.	I 54876	41/M	2.0	2.0	30	30	+ve	+ve
2.	I 54994	21/M	1.0	1.0	30	20	+ve	+ve
3.	I 57150	40/M	2.0	2.0	30	30	+ve	+ve
4.	I 59186	26/M	1.5	2.0	30	20	+ve	+ve
5.	I 67704	35/M	1.0	1.5	30	30	+ve	+ve
6.	I 66344	30/M	0.5	1.5	30	20	+ve	+ve
7.	I 69530	25/M	1.0	2.0	30	30	+ve	+ve
8.	G 81198	42/M	1.0	2.0	10	10	+ve	+ve
9.	I 69360	20/M	0.5	2.0	20	20	+ve	+ve
10.	I 69787	24/M	1.0	2.0	20	30	+ve	+ve
11.	I 70432	44/M	1.5	2.0	30	30	+ve	+ve
12..	I 69649	25/M	1.0	3.0	30	30	+ve	+ve
13.	H 19244	33/M	1.0	2.0	60	60	+ve	+ve
14.	I 64804	35/M	1.0	1.5	30	30	+ve	+ve
15.	I 67741	45/M	1.5	1.5	20	20	+ve	+ve
16.	I 72642	37/M	1.0	1.5	20	20	+ve	+ve
17.	I 73943	40/M	1.0	1.5	15	30	+ve	+ve
18.	I 72640	29/M	1.5	2.0	20	20	+ve	+ve
19.	I 71749	38/M	1.0	1.5	20	20	+ve	+ve
20.	I 74260	22/M	1.0	2.0	15	15	+ve	+ve

Semen Analysis After Treatment

S.NO	OP NO	AGE/SEX	VOLUME/ML		LIQUEFACTION TIME- Min		FRUCTOSE	
			BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
21.	I 75150	40/M	2.0	2.0	30	30	+ve	+ve
22.	I 74213	29/M	1.0	2.0	20	20	+ve	+ve
23.	I 77344	29/M	2.0	2.0	20	20	+ve	+ve
24.	I 75190	26/M	2.0	2.0	30	30	+ve	+ve
25.	I 74820	35/M	3.0	2.5	30	30	+ve	+ve
26.	I 74076	40/M	3.0	2.5	30	30	+ve	+ve
27.	I 77019	29/M	3.0	2.5	30	20	+ve	+ve
28.	I 75565	23/M	1.5	1.5	15	20	+ve	+ve
29.	I 74271	32/M	1.5	1.5	15	15	+ve	+ve
30.	I 80234	41/M	3.0	3.0	30	30	+ve	+ve
31.	I 80094	32/M	3.0	2.0	30	30	+ve	+ve
32.	I 80098	40/M	2.0	2.5	30	30	+ve	+ve
33.	I 76162	26/M	2.0	2.5	30	30	+ve	+ve
34.	I 80524	41/M	0.5	2.0	20	20	+ve	+ve
35.	I 80174	33/M	2.0	2.0	30	30	+ve	+ve
36.	I 81946	36/M	2.0	2.5	20	20	+ve	+ve
37.	F 78386	28/M	2.0	2.0	30	20	+ve	+ve
38.	I 81785	30/M	1.5	2.0	20	20	+ve	+ve
39.	E 19088	35/M	1.0	2.0	20	20	+ve	+ve
40.	I 80114	44/M	2.0	2.0	30	30	+ve	+ve

18). DSSC Score Before and After Treatment

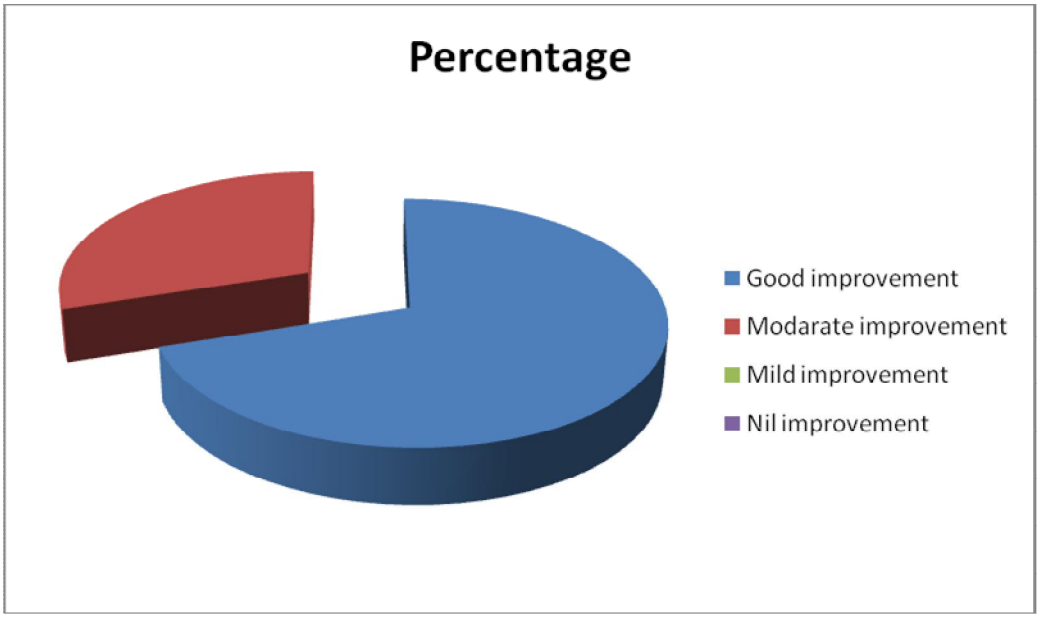
S. No.	OP/IP NO.	NAME	AGE / SEX	BT	AT	Result
1	I 54876	Mr. K.Chandran	41/M	84	15	Good
2	I 54994	Mr. R. Shanmugam	21/M	91	15	Good
3	I 57150	Mr. C. Suresh raj	40/M	69	10	Good
4	I 59186	Mr. V. Kalithasan	26/M	70	20	Good
5	I 67704	Mr. S. Shankar	35/M	88	18	Good
6	I 66344	Mr. S. Ramu	30/M	75	25	Good
7	I 69530	Mr. R. Rajesh	25/M	68	21	Good
8	G 81198	Mr. C. Marish	42/M	75	37	Good
9	I 69360	Mr. M. Mazar Akram	20/M	76	28	Good
10	I 69787	Mr. S. Vinoth	24/M	91	41	Moderate
11	I 70432	Mr. M. Kumar	44/M	73	48	Moderate
12	I 69649	Mr. P. Satheeshkumar	25/M	65	31	Good
13	H 19244	Mr. P. Ponraj	33/M	86	43	Moderate
14	I 64804	Mr. M.K. Abdhul Razak	35/M	70	27	Good
15	I 67741	Mr. K. Kanniyappan	45/M	81	41	Moderate
16	I 72642	Mr. T. Dheenadayalan	37/M	71	43	Moderate
17	I 73943	Mr. T. Manokaran	40/M	64	26	Good
18	I 72640	Mr. P. Sinnadurai	29/M	60	37	Good
19	I 71749	Mr. G. Gobi	38/M	72	35	Good
20	I 74260	Mr. S.K. Pandiyan	22/M	84	15	Good

DSSC Score Before and After Treatment

S. No.	OP/IP NO.	NAME	AGE / SEX	BT	AT	Result
21	I 75150	Mr. A. Shivakumar	40/M	76	26	Good
22	I 74213	Mr. K. Murugan	29/M	83	29	Good
23	I 77394	Mr. R. Murugan	29/M	80	45	Moderate
24	I 75190	Mr. G. Anandaraj	26/M	84	45	Moderate
25	I 74820	Mr. S. Mathavan	35/M	88	45	Moderate
26	I 74076	Mr. N. Kannan	40/M	65	37	Good
27	I 77019	Mr. S. Majilmurugan	29/M	113	55	Moderate
28	I 75565	Mr. J. Anzar Bhasha	23/M	112	38	Good
29	I 74271	Mr. S. Balamurugan	32/M	135	46	Moderate
30	I 80234	Mr. R. Syed Abu Ali	41/M	77	28	Good
31	I 80094	R. Shanmugam	32/M	96	37	Good
32	I 80098	Mr. V. Sundaramoorthi	40/M	107	51	Moderate
33	I 76162	Mr. S. Sasitharan	26/M	72	24	Good
34	I 80524	Mr. R. Jeysankar	41/M	57	33	Good
35	I 80174	Mr. G. Perumal	33/M	87	30	Good
36	I 81946	Mr. S. Venkadesan	36/M	78	38	Good
37	F 78386	Mr. G. Manikandan	28/M	75	21	Good
38	I 81785	Mr. S. Karthik	30/M	68	27	Good
39	E 19088	Mr. M. Jeyaraman	35/M	80	54	Moderate
40	I 80114	Mr. R. Poongavanam	44/M	61	22	Good

S. No	Result	No. of Patients	Percentage
01	Good improvement	28	70 %
02	Moderate improvement	12	30 %
03	Mild improvement	00	00 %
04	Nil improvement	00	00 %

19). Results DSSC Score Before and After Treatment



Observations

The Clinical improvements (DSSC Score) after the Clinical trial was observed of good improvement was in 28 (70 %) of the patients and moderate improvements were observed in 12 (30 %) of the patients.

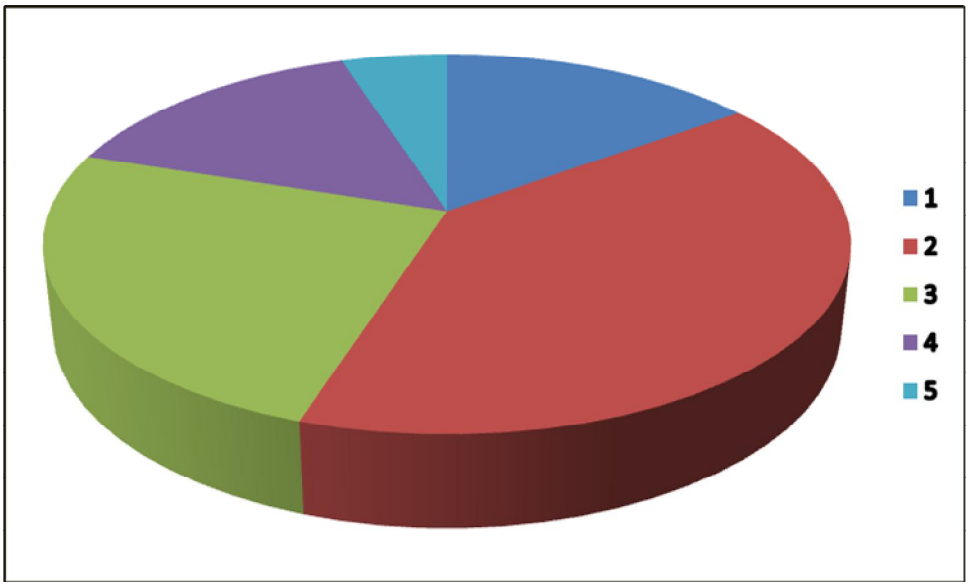
20). Psycho-education / Counselling improvements score Before and After Treatment

S. No	OP/IP NO	NAME	AGE / SEX	BT	AT	Result	Percentage
1	I 54876	Mr. K.Chandran	41/M	37	10	27	73
2	I 54994	Mr. R. Shanmugam	21/M	37	05	32	86
3	I 67704	Mr. S. Shankar	35/M	28	08	20	71
4	I 69530	Mr. R. Rajesh	25/M	30	14	16	53
5	I 69360	Mr. M. Mazar Akram	20/M	33	23	10	30
6	I 69649	Mr. P. Satheeshkumar	25/M	30	17	13	43
7	H 19244	Mr. P. Ponraj	33/M	28	16	12	42
8	I 67741	Mr. K. Kanniyappan	45/M	38	19	19	50
9	I 73943	Mr. T. Manokaran	40/M	38	10	28	74
10	I 71749	Mr. G. Gobi	38/M	29	12	17	59
11	I 75150	Mr. A. Shivakumar	40/M	39	10	29	74
12	I 74213	Mr. K. Murugan	29/M	37	14	23	62
13	I 74820	Mr. S. Mathavan	35/M	29	12	17	59
14	I 77019	Mr. S. Majilmurugan	29/M	37	13	24	65
15	I 75565	Mr. J. Anzar Bhasha	23/M	30	14	16	53
16	I 80098	Mr. V. Sundaramoorthi	40/M	36	11	25	69
17	I 80524	Mr. R. Jeysankar	41/M	37	10	17	46
18	I 81946	Mr. S. Venkadesan	36/M	40	10	30	75
19	F 78386	Mr. G. Manikandan	28/M	38	10	28	74
20	E 19088	Mr. M. Jeyaraman	35/M	32	05	27	84

21). Results of Psycho-education / Counselling improvements

S. No	Result	No. of Cases	Percentage
01	≥ 75	03	15 %
02	60 - 74	08	40 %
03	50 - 59	05	25 %
04	40 - 49	03	15 %
05	≤ 39	01	05 %

Psycho-education / Counselling improvements pie chart



Observations

The improvements after the 6 sessions of Psycho-education / Counselling were more than or equal of 75 % is observed in 03 (15 %) of the patients and between 74 – 60 % improvements were observed in 08 (40 %) of the patients and 59 – 50 was 05 (25 %), 49 – 40 was 03 (15 %) and below or equal of 39 of score was noted in 01 (05 %) patient.

STATISTICAL ANALYSIS

All collected data were entered into MS Excel software using different columns as variables and rows as patients. SPSS software was used to perform statistical analysis. Basic descriptive statistics include frequency distributions and cross-tabulations were performed. The quantity variables were expressed as Mean ± Standard Deviation and qualitative data as percentage. A probability value of <0.05 was considered to indicate as statistical significance. Paired‘t’ test was performed for determining the significance between before and after treatment.

22). Paired Sample Statistics (VCSS Score Before Treatment and After Treatment)

	Mean ± Std	t Value	p value
Before Treatment (40)	**80.2 ± 15.7**	**19.71**	**< 0.0001**
After Treatment (40)	**33.4 ± 11.3**		

Observation

The mean± standard deviation of DSSC score at before and after treatment were 80.20±15.7 and 33.40±11.30 respectively which is statistically extremely significant (t=19.71, p=0.0001).

There is a highly significant difference between before and after treatment on DSSC Score ie. 58 % reduction in DSSC Score after the trial.

23). Statistical Significance of Psycho-education / Counselling

	Mean ± Std	t Value	p value
Before Counselling(20)	33.75 ± 5.0	13.48	< 0.0001
After Counselling (20)	12.15 ± 4.36		

Observation

The mean± standard deviation of VCSS score at before and after treatment were 33.75±5.0 and 12.15±4.36 respectively which is statistically extremely significant (t=13.48, p=0.0001).

There is a highly significant difference between before and after the Psycho-education / Counselling therapy for Randomised selected 20 patients among the total 40 patients on sessions improvement chart ie. 64 % reduction in counselling session Chart score after the trial.

DISCUSSION

The Dhat Syndrome) is one of the most affected psychological related problems in the male from the teen agers to middle aged group especially in Indian subcontinent. Majority of them are not seeking the help to proper health care providers. They have the social stigma in related to this sexual neurotic condition. Large numbers of patients perceive even the natural physiological function as abnormal. The masturbation which is practiced world over by majority of males and significant number of females is perceived as unnatural and abnormal practice. Masturbation is perceived as detrimental to mental and physical health. The Dhat syndrome is rampant among the Indian population and leads to large number of physical and psychological symptoms. Majority of these individuals visit self claimed sex specialists and traditional faith healers. The contact with these health providers not only strengthen their misconception and false beliefs, but also compel the patients to pay huge cost of investigations and drugs which are not only non-effective but also hazardous. This may leads to them as a patient in physically and mentally. In many Hospitals of Modern and Siddha OPD medical practitioners daily seeing some of male patients try to speak some private matters related to their sexual linked physical and psychological problems. Many times it was missed by the doctors due to their heavy workload and think about it was not a serious issue. Hence these kinds of patients get more worsen their problems and become a mentally affected patient.

The trial drugs was prepared in Gunapadam lab of National Institute of Siddha after the authentication of the raw drugs by Assistant professor of medicinal botany NIS and CCRS Arumbakkam, Chennai. The trail drug was prepared by standard operating procedure as mentioned in the Protocol.

The Bio chemical analysis was done at the biochemistry lab of NIS and the results were documented. The Bio-chemical analysis of *Venpoosani Legiyam* had shown the presence of Chloride, Phosphate, Carbonate, Calcium, Potassium, Nitrite, Iron, Tannic acid, starch and Alkaloids.

The clinical study was conducted with a well-defined protocol and a proper proforma after the approval of Institutional Ethical Committee.For this dissertation study, 40 patients were selected and Patients were treated in the OP Department of

Sirappu Maruthuvam, in Ayothidoss Pandithar Hospital - National Institute of Siddha, Tambaram Sanatorium, Chennai –600 047.

Based on various criteria, the data were collected and tabulated. The criteria were family history, age distribution, occupation, dietary habits and incidence of the disease with reference to thinai, seasonal variation, clinical manifestations and assessment of the improvement in the prognosis of the disease with the trial drug.

In Siddha System, it is necessary to bring the vitiated humours to equilibrium. Hence before the treatment *Meganatha Kulikai* with *Inji charu* (*Gingeber officinale*) juice was given for *Viresanam* (Purgation) in the early morning to normalize the vitiated humours. During the treatment, the patients were advised to follow *pathiyam* (Dietary regimen).

Internal Drug **:** *Venpoosani Legiyam* - 5gm two times per day with milk
External Drug : *Ulunthuth Thylam* for external application (massage on penis) 2 times per day
Duration of Drug: 48 days

40 male patients were for this study, among 40 patients, age group 25 to 31 years and 12 (30%) patients between 39 to 45 were equally in 12 in number (30 %), patients between 32 to 38 years, 11 (27.5 %) patients between 18 to 24 years, 05 (12.5%). *Venneer Noi* commonly appears at young and middle age. In this present study, considerable numbers of patients were reported (24 patients) between the age of 25-31 and 39 - 45 among study sample.

The majority of patients in this study were Farmer / Labour workers 15 (37.5 %), Electrical / Technical workers 11 (27.5%). It is reflected from other studies done in dhat Syndrome in other countries.

The bulk of patients in this study were Non-vegetarian 32 (80%) remaining 8 (20%) patients were vegetarian.

In this present study shows, considerable numbers of patients were reported from *Marutham* (37 patients), *Neithal, Kurinji, Mullai thinai were each 1 patient.*

Highest number of patients 38 (95%) were admitted during *Pinpani Kaalam* (*Maasi* & *Panguni*) and 02 patients (05%) were admitted during *Munpani Kaalam* (*Markazhi & Thai*).

Most of patients 20 (50%) were affected in duration of above 1 to 2 years, 15 (25%) patients were affected by the illness from 2 to 3 years, below 1 year and above 3 years duration were in same number 5 (12.5%) .

Laboratory investigations were done for all the cases before and after treatment. There were no variations in hepatic, renal and other parameters.

The outcome of this study was clinically observed by DSSC Score, which showed encouraging results of good improvement in 28 patients (70%), moderate improvement in 12 patients (30%).

Among the 40 patients randomized selected 20 patients received further Psycho-education / Counseling, apart from the trail medicine. This Psycho-education / Counseling results shown 80 % (16 patients) is good improvement.

Patients who have having the night duty work, exposed to very poor result and respond, may be this is the affect of thookkaminai (not enough sleep) and more stressful life style. Based on Siddha Literature who not keep the Thinasariyai (Daily regimen) haven't maintain their good health, this may reflect these patient.

Patients who were received both treatments had revealed very good result and quick revilement than the only trail medicine taken group. Based on this it is shown Medicine combined with Psycho-education / counseling therapy is more effective and appropriate to treat the Venneer Noi (Dhat Syndrome).

In this study, no adverse events were observed during the course of the treatment. At the time of discharge, all the patients were advised to attend Out Patient Department of Sirappu Maruthuvam of NIS for further follow-up 3 months.

SUMMARY

The disease *Venneer Noi* was taken for the clinical study with *Venpoosani Legiyam* as internal medicine and *Ulunthuth Thylam* as external application (massage on penis). For the clinical study, 40 cases were selected based on the approved protocol.

This study has been approved by **IEC of NIS [Date of IEC Approval& its number: NIS/IEC/9-2014-15/16-26.08.2015].** Animal studies were carried out after obtaining approval from the Institutional Animal Ethical Committee (IAEC) and the trial was registered in Clinical Trial Registry of India (Trial REF/2016/06/011548). Hence the study is safely executed on patients and there was no adverse drug reactions noted during the study period.

Out of the 40 cases were treated at OPD, of Ayothidoss Pandithar Hospital of National Institute of Siddha, Chennai-47. Randomly selected 20 cases were received Psycho-education therapy / counselling therapy. The detailed study on *Venneer Noi* with reference to its aetiology, pathogenesis, investigations, clinical features, diagnosis and treatment with trial drugs was done.

The results were observed by DSSC score. Among the 40 cases treated, 70 % cases had shown Good improvement, 30% cases had shown Moderate improvement. Randomised selected 20 patients were received additionally Psycho-education / counselling therapy. This revealed 80% of the patients had above 50% improvement. Combined trial medicine and Psycho-education / Counselling therapy shown more significant improvements.

CONCLUSION

The present clinical study confirms the efficacy of the trial drugs "*Venpoosani Legiyam* (internal medicine) and *Ulunthu Thylam* (external medicine)" which is Siddha Poly herbal formulation. It was found to be good resulting on *Venneer Noi* patients in reducing clinical symptoms like fatigue, weakness, anxiety, loss of appetite, guilty, sadness, semen passing with urine and sexual dysfunction etc. The literature evidence for this drug is Siddha Maruthuvam Pothu, Page No 524**,** 2016 (8^{th} Edition)**,** Published by Department of Indian Medicine and Homeopathy, Arumpakkam, Chennai – 600106.

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The quantitative outcome of DSSC score shows there is significant reduction between before and after treatment. The qualitative outcome shows there is 70 % of cases had shown good improvement and the rest 30 % of cases had shown moderate improvement.

Further the Psycho-education / Couselling therapy had shown more impressive result of reduction of symptoms of *Venneer Noi* (Dhat Syndrome). It shows the better improvement more than 50 % was 16 (80 %) patients.

According to this result it could be the evidence the Psycho-education / Counselling therapy is further given the support to improve the condition of *Venneer Noi* (Dhat Syndrome). The Modern Medical concept of Anxiety related somatic complaints or Culture bound syndrome also has to be proven.The clinical trial conducted in selected patients was satisfactory and the results were encouraging. However a study with large number of patients is required to find out the ideal dose response.

From the above results, the trail drugs "*Venpoosani Legiyam*" (Internal Medicine) and "*Ulunthuth Thylam*" (External Medicine) are responded well in the treatment of *Vennee Noi.*

The costs of the trail medicines are comparatively low. These drugs are easily available and the dosage is also convenient.

NATIONAL INSTITUTE OF SIDDHA

AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial of poly herbal Siddha drugs "*VENPOOSANI LEGIYAM*" (Internal medicine) and "*ULUNTHU THYLAM*" (External medicine) in the treatment of *VEN NEER NOI* (DHAT SYNDROME) with and without Psycho-education therapy.

Principal Investigator: Dr. Vallipuram Anavarathan

FORM I - SCREENING & SELECTION PROFORMA

1. SERIAL NO: 2. OP /IP NO:

3. NAME: 4. AGE/GENDER:

5. OCCUPATION: 6. INCOME:

INCLUSION CRITERIA

- Age : 18 - 45 years
  YES / NO
- Sex : Male
  YES / NO
- Weakness, anxiety, sleeplessness, mild depression and guilt which is attributed to semen loss. YES / NO
- Loss of semen through nocturnal emissions and masturbation frightens the individual as he believes it to be harmful to the body. YES / NO
- Report a white discharge in their urine which they feel is semen. YES / NO
- Mention that passing semen during defecation YES / NO
- Sexual dysfunction may or may not be present. YES / NO
- Willing to give specimen of blood and Sperm for the investigations before and after treatment YES / NO
- Willing to participate in trial and signing consent by fulfilling the condition of Proforma. YES / NO
- Willing to attend OPD for the trial YES / NO
- Willing to give specimen of blood for the investigation YES / NO
- Willing to participate the Psycho-education sessions YES / NO
- Willingness for consent YES / NO

EXCLUSION CRITERIA

- Chyluria YES / NO
- Diabetes mellitus YES / NO
- Severe Cardiac Diseases YES / NO
- Severe Respiratory Diseases YES / NO
- Acute and chronic Renal Diseases YES / NO
- Needed for Surgical Treatment YES / NO
- Alcohol and Substance Abuse YES / NO
- Other severe psychiatric Illness YES / NO
- Mentally Challenged YES / NO
- Physically Challenged YES / NO
- Severe Malignancy Diseases YES / NO
- Any other chronic Illness YES / NO

ADMITTED TO TRIAL IN OPD

YES ☐ NO ☐

Serial NO: ☐☐

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD:

NATIONAL INSTITUTE OF SIDDHA

AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial of poly herbal Siddha drugs "*VENPOOSANI LEGIYAM*" (Internal medicine) and "*Ulunthu Thylam*" (External medicine) in the treatment of *VEN NEER NOI* (DHAT SYNDROME) with and without Psycho-education therapy.

Principal Investigator: Dr. Vallipuram Anavarathan

FORM II-A – HISTORY TAKING PROFORMA

STUDY NO: OP / IP NO:

NAME: AGE / GENDER:

ADDRESS: CONTACT NO :

RELIGION : H / C / M / O.

OCCUPATION: INCOME:

MARITAL STATUS : 1. Married 2. Unmarried

DATE OF INTIAL ASSESSMENT: ☐

COMPLAINTS & DURATION: ☐

PERSONAL HISTORY:

PERSONAL HABITS	**YES**	**NO**	**IF YES SPECIFY DURATION**	**AMOUNT/Qty**
Smoking				
Tobacco Chewing				
Alcohol				
Narcotic Drug Addiction				

HISTORY OF PREVIOUS ILLNESS AND TREATMENT TAKEN:

FAMILY HISTORY:

Whether this problem runs in family? 1. Yes 2. No

If yes, mention the relationship of affected person(s) 1._____

2._____

DIETARY STYLE: 1. Vegetarian 2. Non-vegetarian

FORM II B

GENERAL EXAMINATION:

1. Body weight [kg] :
2. Height [cms] :
3. Body Temperature [F] :
4. Blood Pressure (mm/Hg) :
5. Pulse Rate /min. :
6. Heart Rate / min. :
7. Respiratory Rate /min. :

SYSTEMIC EXAMINATION

1. Cardiovascular system :
2. Respiratory system :
3. Gastro-intestinal system :
4. Central Nervous system :
5. Urogenital system :
6. Endocrine system :

SIDDHA SYSTEM OF EXAMINATION

1. THEGI (BODY CONSTITUTION):

1. Vatha udal ☐
2. Pitha udal ☐
3. Kaba udal ☐
4. Thontha udal ☐

2. NILAM (LAND WHERE THE PATIENT LIVED MOST):

1. Kurinji (Hilly terrain) ☐
2. Mullai (Forest range) ☐
3. Marutham (Plains) ☐
4. Neithal (Coastal belt) ☐
5. Paalai (Aridregion) ☐

3. KAALAM:

1. Kaar kaalam (Aavani-Purattasi) ☐
2. Koothir kaalam (Ippasi-Kaarthigai) ☐
3. Munpani kaalam (Maargazhi-Thai) ☐
4. Pinpani kaalam (Maasi-Panguni) ☐
5. Ilavenil kaalam (Chithirai-Vaigasi) ☐
6. Muthuvenil kaalam (Aani-Aadi) ☐

4. GUNAM:

1. Sathuvam ☐
2. Rasatham ☐
3. Thamasam ☐

5. PORIPULANKAL (SENSORY ORGANS):

Poripulankal	**Before treatment**	**After treatment**
Mei (Skin)	Normal / Affected	Normal / Affected
Vai (Tongue)	Normal / Affected	Normal / Affected
Kann (Eye)	Normal / Affected	Normal / Affected
Mooku (Nose)	Normal / Affected	Normal / Affected
Sevi (Ear)	Normal / Affected	Normal / Affected

6.KANMENDRIYANKAL (MOTOR ORGANS) :

Kanmenthiriyankal	**Before treatment**	**After treatment**
Kai(Upper limb)	Normal /Affected	Normal /Affected
Kaal (Lower limb)	Normal /Affected	Normal /Affected
Vai (Oral cavity)	Normal /Affected	Normal /Affected
Eruvai (Anal region)	Normal /Affected	Normal /Affected
Karuvai (Uro-Genital region)	Normal /Affected	Normal /Affected

7.KOSANGAL (SHEATH):

Kosankal	**Before treatment**	**After treatment**
Annamaya kosam	Normal /Affected	Normal /Affected
Pranamaya kosam	Normal /Affected	Normal /Affected
Manomaya kosam	Normal /Affected	Normal /Affected
Vignanamaya kosam	Normal /Affected	Normal /Affected
Ananthamaya kosam	Normal /Affected	Normal /Affected

8. SEVEN UDAL THAATHUKKAL (SEVEN SOMATIC COMPONENTS)

Thathukkal	**Before treatment**	**After treatment**
Saaram	Normal /Affected	Normal /Affected
Senneer	Normal /Affected	Normal /Affected
Oon	Normal /Affected	Normal /Affected
Kozhuppu	Normal /Affected	Normal /Affected
Enbu	Normal /Affected	Normal /Affected
Moolai	Normal /Affected	Normal /Affected
Sukkilam / Suronitham	Normal /Affected	Normal /Affected

9. UYIR THAATHUKKAL: [THREE HUMORS] (VALI/ AZHAL/ IYYAM)

A) VALI

Vali	1st day	8th day	15th day	22nd day	29th day	36th day	42nd day	48th day
Praanan								
Abaanan								
Samaanan								
Udhaanan								
Viyaanan								
Naagan								
Koorman								
Kirukaran								
Devathathan								
Dhananjeyan								

B) AZHAL

Azhal	1st day	8th day	15th day	22nd day	29th day	36th day	42nd day	48th day
Analakam								
Ranjakam								
Saathakam								
Prasakam								
Aalosakam								

C) IYYAM

Iyam	1st day	8th day	15th day	22nd day	29th day	36th day	42nd day	48th
Avalambagam								
Kilethagam								
Pothagam								
Tharpagam								
Santhigam								

10. ENVAGAI THERVU: [EIGHT TYPES OF EXAMINATION]

I. NAADI: [PULSE PERCEPTION]

NAADI	1st day	8th day	15th day	22nd day	29th day	36th day	42nd day	48th day

II. SPARISAM: [PALPATION]

Day	SPARISAM
01st day	
08th day	
15th day	
22nd day	
29th day	
36th day	
42nd day	
48th day	

III. NAA: [TONGUE]

NAA	1st day	8th day	15th day	22nd day	29th day	36th day	42nd day	48th day

IV. NIRAM: [COMPLEXION]

1. Vadham ☐
2. Pitham ☐
3. Kabam ☐

V. MOZHI: [VOICE]

1. High Pitched ☐
2. Low Pitched ☐
3. Medium Pitched ☐

VI. VIZHI: [EYES]

VIZHI	1st day	8th day	15th day	22nd day	29th day	36th day	42nd day	48th day

VII. MALAM: [BOWEL HABITS / STOOLS]

Mala kunam	Before treatment	After treatment
Niram		
Irugal		
Ilagal		
Others		

VIII. MOOTHIRAM [URINE EXAMINATION]

NEERKKURI:

Neerkkuri	Before treatment	After treatment
Niram		
Manam		
Edai		
Nurai		
Enjal		

NEIKKURI:

Neikkuri	Before treatment	After treatment
Aravana needathu/ Snake like pattern		
Azhipol paraviyathu Annular/Ringedpattern		
Muththothu ninrathu Pearlbeadepattern		
Other patterns		

11. CLINICAL EXAMINATION:

<u>Dhat Syndrome Symptoms Checklist:</u>

Scoring

00 - Not at all
01 - Mildly
02 - Moderately
03 - Severe
04 - More severe

Dhat Syndrome Symptoms Checklist (DSSC)
Before treatment

Sl. No	Symptoms	Scoring				
		00	01	02	03	04
	Physical					
01	Generalized weakness					
02	Backaches					
03	Localized ache and pain					
04	Ach and pain not localized					
05	Weakness of nerves					
06	Loss of hair					
07	Fatigue					
08	Abdominal dissention					
09	Constipation					
10	Shrinkage penis					
11	Excessive salivation					
	Somatic					
12	Restlessness					
13	Excessive sweating					
14	Blurred vision					
15	Poor sleep					
16	Singing of heart					
17	Numbness in the limbs					
18	Burning sensation of chest					
19	Acidity					
20	Dryness of mouth					
21	Palpitation					
	Psychological					
22	Fear					
23	Guilty					
24	Shyness					
25	Embarrassment					
26	Anxiety					
27	Loss of confidence					
28	Nervousness					
29	Pour memory					
30	Low mood					
31	Suicidal thoughts					
32	Not being oneself (depersonalization)					
	Sexual/ genital					
33	Burning Micturition					
34	Penile discharge					
35	Thinness of seminal fluid					
36	Penile discharge before passing urine					
37	Premature ejaculation					
38	Penile discharge after passing urine					
	Desire					
39	Lack of interest in sex					
40	Decrease desire for sex					

Dhat Syndrome Symptoms Checklist (DSSC)
After treatment

Sl. No	Symptoms	Scoring				
		00	01	02	03	04
	Physical					
01	Generalized weakness					
02	Backaches					
03	Localized ache and pain					
04	Ach and pain not localized					
05	Weakness of nerves					
06	Loss of hair					
07	Fatigue					
08	Abdominal dissention					
09	Constipation					
10	Shrinkage penis					
11	Excessive salivation					
	Somatic					
12	Restlessness					
13	Excessive sweating					
14	Blurred vision					
15	Poor sleep					
16	Singing of heart					
17	Numbness in the limbs					
18	Burning sensation of chest					
19	Acidity					
20	Dryness of mouth					
21	Palpitation					
	Psychological					
22	Fear					
23	Guilty					
24	Shyness					
25	Embarrassment					
26	Anxiety					
27	Loss of confidence					
28	Nervousness					
29	Pour memory					
30	Low mood					
31	Suicidal thoughts					
32	Not being oneself (depersonalization)					
	Sexual/ genital					
33	Burning Micturition					
34	Penile discharge					
35	Thinness of seminal fluid					
36	Penile discharge before passing urine					
37	Premature ejaculation					
38	Penile discharge after passing urine					
	Desire					
39	Lack of interest in sex					
40	Decrease desire for sex					

FORM II C – PSYCHO-EDUCATION ASSESSMENT FORM
BEFORE TREATMENT
PSYCHO – EDUCATION SCREENING AND ASSESSMENT QUESTIONNAIRE

PSYCHOLOGICAL AND COUNSELLING

Brief Adult Outcome Questionnaire Version II (BAOO – II)

The Brief questionnaire asks about some of the most commonly reported thoughts, feeling and behaviors among adults seeking behavioral health treatment. Please think about the past two weeks and answer the questions below to the best of your ability. This will help you and your therapist / doctor to plan your treatment and monitor your improvement.

	How often did you	**Never**	**Hardly ever**	**Some times**	**Often**	**Very often**
01	Feel unhappy or sad					
02	Have little or no energy					
03	Have a hard time getting along with family, friends, or coworkers					
04	Feel hopeless about the future					
05	Have a hard time paying attention					
06	Feel unproductive at work or other daily activities					
07	Feel tense or nervous					
08	Have problem with sleep (too much or too little)					
09	Feel lonely					
10	Think about harming yourself					
11	Have someone express concerns about your loss of semen					
12	Have more than five times of passing semen in a one week time					
13	Have a problem at work, college, or home because of excess semen loss issue					

Please take a moment to assess your last session to help us better serve your needs:

	Please answer according to their relevance	**True**	**Almost True**	**Unsure**	**Almost False**	**False**
01	I felt we talked about the things that were important to me.					
02	I felt that the therapist/ doctor liked and understood me.					
03	I felt that the session has helpful.					
04	I felt confident that the therapist/ doctor and I worked well together					

FORM II C – PSYCHO-EDUCATION ASSESSMENT FORM AFTER TREATMENT

PSYCHO – EDUCATION SCREENING AND ASSESSMENT QUESTIONNAIRE

PSYCHOLOGICAL AND COUNSELLING

Brief Adult Outcome Questionnaire Version II (BAOO – II)

The Brief questionnaire asks about some of the most commonly reported thoughts, feeling and behaviors among adults seeking behavioral health treatment. Please think about the past two weeks and answer the questions below to the best of your ability. This will help you and your therapist / doctor to plan your treatment and monitor your improvement.

	How often did you	**Never**	**Hardly ever**	**Some times**	**Often**	**Very often**
01	Feel unhappy or sad					
02	Have little or no energy					
03	Have a hard time getting along with family, friends, or coworkers					
04	Feel hopeless about the future					
05	Have a hard time paying attention					
06	Feel unproductive at work or other daily activities					
07	Feel tense or nervous					
08	Have problem with sleep (too much or too little)					
09	Feel lonely					
10	Think about harming yourself					
11	Have someone express concerns about your loss of semen					
12	Have more than five times of passing semen in a one week time					
13	Have a problem at work, college, or home because of excess semen loss issue					

Please take a moment to assess your last session to help us better serve your needs:

	Please answer according to their relevance	**True**	**Almost True**	**Unsure**	**Almost False**	**False**
01	I felt we talked about the things that were important to me.					
02	I felt that the therapist/ doctor liked and understood me.					
03	I felt that the session has helpful.					
04	I felt confident that the therapist/ doctor and I worked well together					

Psycho-Education / Counselling:

Weekly one session (totally 6 sessions)

- Apply the Basic Psychological counselling technique with give the essential anatomical and physiological education related to Dhat Syndrome.
- Use cognitive behavioural therapy and behaviour modification techniques.

Visit	Date	Psycho- Education Sessions
Day 08		
Day 15		
Day 22		
Day 29		
Day 35		
Day 42		

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD

NATIONAL INSTITUTE OF SIDDHA

AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial of poly herbal Siddha drugs "*VENPOOSANI LEGIYAM*" (Internal medicine) and "*ULUNTHU THYLAM*" (External medicine) in the treatment of *VEN NEER NOI* (DHAT SYNDROME) with and without Psycho-education therapy.

Principal Investigator: Dr. Vallipuram Anavarathan

1. SERIAL NO:

2. OPD NO:

3. NAME:

4. AGE/GENDER:

FORM-III - LABORATORY INVESTIGATIONS

BLOOD INVESTIGATIONS		NORMAL VALUES	BEFORE TMT (DATE)	AFTER TMT (DATE)
Hb (gm/dl)		12-15		
T.WBC (cells/cu.mm)		4000-11000		
DIFFERENTIAL COUNT (%)	Polymorphs	40-75		
	Lymphocytes	20-40		
	Monocytes	2-10		
	Eosinophils	1-6		
	Basophils	0-1		
T.RBC (million cells / cu.mm)		M:4.0-5.5		
ESR (mm/hour)	½ hr.	06 - 12		
	1 hr.	12 - 20		
Blood glucose (mg/dl)	Fasting	70-110		
	PP	80-140		
	Random	80-120		

RFT (mg/dl)	**Blood Urea**	**16-50**		
	Serum Creatinine	**0.6-1.2**		
LFT (mg/dl)	**Total bilirubin**	**0.2-1.2**		
	Direct bilirubin	**0.1-1.2**		
	Indirect bilirubin	**0.2-0.7**		
	SGOT	**0-40**		
	SGPT	**0-35**		
	Alkaline Phosphatase	**80-290**		

URINE INVESTIGATION	BEFORE TMT(DATE)	AFTER TMT (DATE)
Albumin		
Fasting sugar		
PP sugar		
Deposits		

ROUTINE SEMEN ANALYSIS

GENERAL EXAMINATION

Place of collection:-

Specimen Collected at:-

Specimen Examined at:-

Abstinence: - 2 - 7 days

Test Description	Biological Ref. Interval Observed Value	Before Treatment	After Treatment
PHYSICAL EXAMINATION			
Volume	1.5 ml or more		
pH	7.2 or more		
Colour	Opalescent, Greyish white		
Liquefaction	Completes within 15 mts		
Viscosity	< 2 cms thread		

CHEMICAL EXAMINATION			
Fructose Test	Positive		
MICROSCOPIC EXAMINATION			
Sperm vitality	> 58 %		
Sperm count (Millions / ml)	15 millions/ml or more		
Sperm count per ejaculate	More than 40 millions		
Sperm Motility	within before 60 mts		
a) Rapid forward Progression	> 25 %		
b) Sluggish forward Progression			
Total forward Progression (a+b)	> 32 % (a + b)		
c) Non Progressive	< 20 %		
d) Non Motile	0		
SPERM MORPHOLOGY (Pap Stain)			
Normal Sperms	> 4%		
Abnormal Head			
Abnormal Neck			
Abnormal Tail			
OTHERS :			
Immature Germ Cells			
Leucocytes			
Epithelial Cells			
Red Blood Cells			
Candida/Trichomonads			
MISCELLANEOUS CHARACTERS			
Agglutination of Sperms	Not Present		
Crystals	Not seen		
Grams Staining	No organisms seen.		
Interpretation	Normozoospermia		

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD:

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Name of Principal Investigator: Dr. Vallipuram Anavarathan

FORM-IV – CONSENT FORM

"I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I consent voluntarily to participate as a participant in this study and understand that I have the right to withdraw from the study at any time without in any way it affecting my further medical care".

"I have received a copy of the information sheet/consent form".

Date:

Signature of the participant

In case of illiterate participant

"I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm individual has given consent freely."

Date:

Signature of a witness

(Selected by the participant bearing no connection with the survey team)

Left thumb Impression of the Participant

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD

FORM – IV xgGjy gbtk

Mathsuhy rhdwsffgglIJ

ehd ntz zu Neha (Dhat Syndrome) vdDk Nehad Maitf Fwjj midjJ tguqfisAk Nehahsffg GuAk tifay vLjJiujNjd vd cWjasffNwd.

Njj ifnahggk

,lk ngau

Nehahsad xgGjy

vddlk ,ej kUjJt Matd fhuzjijAk kUejd jdik kwWk kUjJt toKiw gwwAk njhlueJ vdJ cly ,affjjijf fzfhzffTk mjid ghJfhffTk gadgLk kUjJt MaT$l guNrhjidfs gwwp jUgj msffFk tifay MaT kUjJtuhy tsffff $wgglIJ.

ehd ,ej kUjJt MatdNghJ vgnghOJ NtzLkhdhYk ,ej MatyUeJ vdid tLtjJ nfhsSk cuikia njuejUffNwd. ehd vdDila Rjejukhd NjuT nraAk cuikiaf nfhzL ntz zu Nehaffhf (Dhat Syndrome) kUejhf ntzGrz Nyfak (cs kUeJ) kwWk) cSeJ ijyk (ntsp kUeJ) kUeJfsd gufugGj jwidf fzlwAk kUjJt MatwF vdid clgLjj xgGjy msffNwd.

Njj:
,lk:

ifnahggk:
ngau:
rhlrffhuu ifnahggk:
ngau:
cwTKiw:

Mathsu ifnahggk :

tuTiuahsu ifnahggk: Jiwj jiytu ifnahggk :

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Name of the Principal Investigator: Dr. Vallipuram Anavarathan

FORM V - WITHDRAWAL FORM

1. SERIAL NO OF THE CASE:
2. OP / IP NO:
3. NAME:
4. AGE:
5. GENDER:
6. DATE OF TRIAL COMMENCEMENT:
7. DATE OF WITHDRAWAL FROM TRIAL:
8. REASONS FOR WITHDRAWAL:

Long absence at reporting:	Yes/ No
Irregular treatment:	Yes/ No
Shift of locality:	Yes/No
Increase in severity of symptoms:	Yes/No
Development of severe adverse drug reactions:	Yes/No
Development of adverse event:	Yes/No

(If YES, give the details of adverse reaction in Form VII -B – Adverse Reaction Form / Pharmaco Vigilance Form)

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD

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. **FORM-VI– INFORMATION SHEET**

Name of Principal Investigator **:** Dr. Vallipuram Anavarathan

Name of the Institute : National Institute of Siddha,
Tambaram Sanatorium,
Chennai- 600047.

INFORMATION SHEET FOR PATIENTS PARTICIPATING IN THE OPEN CLINICAL TRIAL:

I, Dr. Vallipuram Anavarathan reading M.D (Siddha) at National Institute of Siddha, Tambaram Sanatorium, is doing a trial on the study of *VEN NEER NOI* (DHAT SYNDROME). Dhat Syndrome is a most common psychological problem in the Indian subcontinent it has general weakness, lack of energy and concentration, impaired sexual functions, and vague somatic troubles, often associated with an anxious or dysphoric mood state. In this regard, I am in a need to ask you few questions. I will maintain confidentiality of your comments and data obtained. There will be no risk of disclosing your identity and no physical, psychological or professional risk is involved by taking part in this study. Taking part in this study is voluntary. No compensation will be paid to you for taking part in this study.

You can choose not to take part. You can choose not to answer a specific question. There is no specific benefit for you if you take part in the study. However, taking part in the study may be of benefit to the community, as it may help us to understand the problem of defaulters and potential solutions.

If you agree to be a participant in this study, you will be included in the study primarily by signing the consent form and then you will be given the internal medicine *Venpoosani Legiyam* (Internal medicine-5gm, Twice a Day with milk for 48 days) and *Ulunthu Thylam* (External medicine), if you wish to undergo the Psycho-education therapy will be provided to you assuring that you will not be definitely hurt in any course of treatment.

The information I am collecting in this study will remain between you and the principal investigator (myself).

If you wish to find out more about this study before taking part, you can ask me all the questions you want or contact Dr. Vallipuram Anavarathan, PG Scholar cum principal investigator of this study, attached to National Institute of Siddha, Chennai-47. You can also contact the me at, National Institute Siddha, Chennai 600047, Tel no: 9962723482, for rights and participation in the study.

FORM-V j f t y gb t k

n t z z u §¿¡ ö ì ¸¡ É (Dhat Syndrome) kUejhf› n t z g+r z ¡ §Ä¸ÂõÂ (¯ û ÁÕóÐ) ÁüÚõ ¯ Ù óÐò ¨¾Äõ (¦Å Ç ÁÕóÐ) ¬ ¸Â º ò¾ ÁÕóÐ¸Ç ý ÀÃ¸Ãô Ò ò ¾È ¨ É ì ¸ ñ ¼È Ôõ ÁÕòÐÅ ¬ ö Å ü¸¡ É ¾¸Å ø ÀÊÅõ.

Ó¾ý ¨Á ¬ Ã¡ ö î º Â¡ Ç÷ ¦ÀÂ÷: Dr. Å. « É ÅÃ¾ý
¿ Ú Å É ò¾ ý ¦ÀÂ÷ : §¾ º Â º ò¾ ÁÕòÐÅ ¿ Ú Å É õ,
¾¡ õÀÃõ º¡ É ð§¼¡ Ã Âõ, ¦ º ý ¨ É - 47.

§¾ º Â º ò¾ ÁÕòÐÅ ¿ Ú Å É ò¾ ø Àð¼ §ÁüÀÊôÒ ÀÂ ý Ú ÅÕõ ¿¡ ý Dhat syndrome (n t z z u §¿¡ ö) ± ý Ûõ §¿¡ Â ø ÁÕòÐÅ ¬ Ã¡ ö î º Â ø ® Î Àð Î û§Ç ý.

º ò¾ ÁÕòÐÅò¾ ø n t z z u§¿¡ ö (Dhat syndrome) ± ý Ûõ §¿¡ Â¡ É Ð ¯ ¼ø, ¯ Ç¿Ä ¨ É À¡ ¾ ì Ì õ ´Õ §¿¡ Â¡ Ì õ. þó¾ §¿¡ Â ø ¸¨ Ç ôÒ, þ ÂÄ¡ ¨ Á, ¯ ¼ü§ º ¡ ÷ ×, º ì ¾ Â ý ¨ Á, À¾ð¼õ, ¸Õò à ý È Ó Ê Â¡ ¨ Á, À¾¸Ç ôÒ, ¿ ò¾ ¨ÃÂ ý ¨ Á, Á É î§ º ¡ ÷ ×, Á É ì ¸Ä ì ¸õ, Ì üÈ × ½ ÷ ×, « ¾ ¸ Í Â À¡ Ä ý À õ « Û À Å ò¾ ø ãÄõ Å óÐ ¦ Å Ç§ÂÈø, þÃÅ ø ¸É Å ø Å óÐ ¦ Å Ç§ÂÈø ¬ ¸Â Ì È Ì ½ í ¸û ¸¡ ½ ôÀ Î õ. þÐ ÁüÈÅ÷¸Ù ì Ì ô ÀÃÅ Ü Ê Â §¿¡ ö « øÄ. þó¾ ¬ Ã¡ ö î º ì Ì º õÁó¾Á¡ ¸ º Ä § ¸û Å ¸¨ Ç § ¸ð ¸ × õ, À Ã§ º ¡ ¾ ì ¸ × õ, §¾ ¨ Å Â¡ É ¬ ö Å ¸ À Ã§ º ¡ ¾ ¨ É ì Ì õ ¾ í ¸¨ Ç ¯ ð À Î ò¾ × õ ¯ û§Ç ý.

þó¾ ¬ Ã¡ ö î º ì Ì ¾¡ í ¸û Å Õ ôÀò¾ ý §À Ã ø ¯ ð À Î õ À ð º ò¾ ø ¯ û Á Õó¾¡ ¸ « ‰ Å ¸ó¾ § Ä ¸Â õ 5¸ « Ç × À¡ ø « Û À¡ É ò¾ ø 2 § Å ¨ Ç (¸¡ ¨ Ä Á¡ ¨ Ä) ¯ ½ × ì Ì ô À ý 48 ¿¡ ð ¸Ù ì Ì ¯ ð ¦ ¸¡ û Ç § Å ñ Î õ. ¦ Å Ç Á Õó¾¡ ¸ ¯ Ù óÐò ¨¾Äõ 48 ¿¡ ð ¸Ù ì Ì ¦ Å Ç§Â ¾ ¨ Ä Â Ö õ ¬ ñ Ì È Â Ö õ ¾¼Å § Å ñ Î õ. ¦ Å Ç § ¿¡ Â¡ Ç÷ ¸û 7 ¿¡ ð ¸Ù ì Ì ´Õ Ó ¨ È Á Õò Ð Å Á ¨ É ì Ì Å Ã§ Å ñ Î õ.

þÐ ºõÀó¾Á¡É ¾í¸ÇÐ «¨ÉòÐ Å¹ÅÃí¸Ùõ Ã¸º¹ÂÁ¡¸ ¨Åì¸ôÀÎõ ±É ¯Ú¾¹ «Ç¹ì¸¹§Èý. þ¾¹ø ÀÂ½ôÀÊ Ó¾Ä¹Â ±ó¾ ¯¾Å¹ ¦¾¡¨¸Ôõ ÅÆí¸ôÀ¼ Á¡ð¼¡Ð.þó¾ ¬Ã¡öîº¹Â¹ý §À¡Ð ¯¼Öì Ì §ÅÚ À¡¾¹ôÒ ²üÀÎõ Àðºò¾¹ø §¾º¹Âº¹ò¾ ÁÕòÐÅÁ¨É Â¹ø ¾ì¸ Á¡üÚ º¹¸¹î¨º «Ç¹ì¸ôÀÎõ. þó¾ ¬Ã¡öîº¹Â¹ø ¾í¸¨Ç ¯ðÀÎò¾Â À¹È Ì ¯í¸Ùì Ì Å¹ÕôÀÁ¹-ø¨Ä¦ÂÉ¹ø ±ô§À¡Ð §Å ñ ÎÁ¡É¡Öõ Å¹Ä¸¹ ¦¸¡û Ç ÓØ ¯Ã¹¨Á ¯ûÇÐ

þó¾ ¬Ã¡öîº¹ ºõÀó¾Á¡ ÁüÈ Å¹ÀÃí¸Ùì Ìõ §¿¡Â¹ý ¾ý¨Á À üÈ¹Ôõ Ó¾ý¨Á

¬Ã¡öîº¹Â¡ÇÃ¡É Dr.Å.«É ÅÃ¾ý Àð¼ §Áü ÀÊôÀ¡Ç÷ º¹ÈôÒ ÁÕòÐÅ À¹Ã× «Ï¸×õ.¨¸ô§Àº¹ ± ñ.9962723482. §ÁÖõ þó¾ ¬Ã¡öîº¹ì Ì IEC º¡ý Ú ¦ÀÈôÀðÎûÇÐ.

þó¾ ÁÕóÐ n t z z u §¿¡öffhf (Dhat syndrome) º¹ò¾ ÁÕòÐÅò¾¹ø ÜÈôÀðÎûÇÐ. ²ü¸É§Å ¯À§Â¡¸ò¾¹ø ¯ûÇ þÐ §À¡ýÈ ÁÕóÐ þÐÅ¨Ã §¿¡Â¡Ç¸Ç¼õ ±ó¾Å¾ À ì¸ Å¹¨Ç×¸¨ÇÔõ ²üÀÎò¾Å¹ø¨Ä. §ÁÖõ ¯½× Ó¨ÈÂ¹ø §¸¡Æ¹ þ¨Èîº¹, «¾¹¸ ¸¡Ãõ, ÒÇ¹ôÒ Ó¾Ä¹Â¨Å¸¨Ç ¾Å¹÷òÐ þîº¡ À ò¾¹Âõ ¸¡ì Ì Á¡Ú «È¹×Úò¾ôÀÎ¸¹ÈÐ

Signature of the Patients:

Date: Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD:

NATIONAL INSTITUTE OF SIDDHA

AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

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Name of Principal Investigator: Dr. Vallipuram Anavarathan

FORM –VII- DRUG COMPLIANCE FORM

NAME:

SERIAL NO:

DRUG:

On 01st day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

On 08th day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

On 15th day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

On 22nd day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

On 29th day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

On 36th day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

On 42nd day-Date: Drugs issued: (Gms) Drugs returned: (Gms)

Day	Date	Morning	Evening	Day	Date	Morning	Evening
Day 01				Day 25			
Day 02				Day 26			
Day 03				Day 27			
Day 04				Day 28			
Day 05				Day 29			
Day 06				Day 30			
Day 07				Day 31			
Day 08				Day 32			
Day 09				Day 33			
Day 10				Day 34			
Day 11				Day 35			

Day 12				Day 36			
Day 13				Day 37			
Day 14				Day 38			
Day 15				Day 39			
Day 16				Day 40			
Day 17				Day 41			
Day 18				Day 42			
Day 19				Day 43			
Day 20				Day 44			
Day 21				Day 45			
Day 22				Day 46			
Day 23				Day 47			
Day 24				Day 48			

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD:

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Name of the Principal Investigator: Dr.Vallipuram Anavarathan

FORM VIII – ADVERSE REACTION FORM / PHARMACO VIGILANCE FORM

SERIAL NO:

OP/IP NO:

NAME: AGE: GENDER:

DATE OF TRIAL COMMENCEMENT:

Date	DESCRIPTION OF ADVERSE REACTION	REMARKS

Date:

Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD

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Name of the Principal Investigator: Dr. Vallipuram Anavarathan

FORM IX – DIETARY ADVICE FORM

§ º ÷ ì ¸ Ù Ê Â ¯ ½ × ¸ û	¾ Å ł ÷ ì ¸ § Å ñ Ê Â ¨ Å ¸ û
Ó Õ í ¨ ¸ ô À ł ï Í « Å ¨ Ã ô À ł ï Í ¸ ¡ Ã ð À ł ð å ð ¸ Ã ł º ¡ ¨ Ä ¦ À ¡ ý É ¡ í ¸ ñ ½ ł Á ½ ò ¾ ì ¸ ¡ Ç ł Ó Õ í ¨ ¸ ì ¸ ¦ ¨ Ã À º ¨ Ä ì ¸ ¦ ¨ Ã º ł Ú ¸ ¦ ¨ Ã ¸ È ł § Å ô À ł ¨ Ä ¦ ¸ ¡ ò ¾ Á ø Ä ł ¿ ø ¦ Ä ñ ¦ ½ ö À ¡ ø Á ¡ Ð ¨ Ç ¬ ô À ł û § À Ã ł î ¨ º ¾ ł Ã ¡ ð ¨ º ± Ö Á ł î ¨ º ¿ ¡ Å ø º ô § À ¡ ð ¼ ¡ ¯ Ä ÷ ¾ ł Ã ¡ ð ¨ º § Å ¸ ¨ Å ò ¾ ¸ ¡ ö ¸ È ł ¸ û	§ ¸ ¡ Æ ł ì ¸ È ł ¸ Õ Å ¡ Î Ò Ç ł ô Ò ô ¦ À ¡ Õ ð ¸ û ¦ À ¡ Ã ł ò ¾, Å Ú ò ¾ ¯ ½ × ¸ û Ò Ç ł ô Ò ò ¾ Â ł ÷, § Á ¡ ÷ mj f v z i z Nruej c z Tf s ° Ú ¸ ¡ ö ¦ À ñ § À ¡ ¸ õ § À ¡ ¨ ¾ ô ¦ À ¡ Õ ð ¸ û Ò ¨ ¸ ô À ł Ê ò ¾ ø Á Ð « Õ ó Ð ¾ ø

Date: Station:

Signature of the Investigator:

Signature of the Faculty: Signature of the HOD:

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This Certificate is awarded to Dr/Mr/Mrs.....Vallipuram Anavarathan.....

for participating as ~~Resource~~ ~~Person~~ / Delegate in the Eighteenth Workshop on

" RESEARCH METHODOLOGY & BIOSTATISTICS "

FOR AYUSH POST GRADUATES & RESEARCHERS

Organized by the Department of Siddha

The Tamil Nadu Dr. M.G.R. Medical University from 20 th to 24 th July 2015.

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F.No.NIS/6-20/IEC/15-16 Dt: 05.10.2015

CERTIFICATE

Address of Ethics Committee: National Institute of Siddha, Tambaram Sanatorium, Chennai-600047, Tamil Nadu, India	
Principal Investigator:Dr.V.Anavarathan, Department of Sirappu Maruthuvam	
Protocol title: "An open clinical trial of Poly Herbal Siddha drug Venpoosanai Lekiyam (Internal medicine) and Ulunthu Thylam (External medicine) in the treatment of Venneer Noi (Dhat Syndrome) with and without Psycho Education Therapy"	
Documents filed	1) Protocol, 2) Data Collection forms 3) SAE(Pharmacovigilance)
Clinical trial Protocol (others – Specify)	Yes
Informed consent documents	Yes
Any other documents	-
Date of IEC approval & its number	**NIS/IEC/9/2014-15/16 – 26.08.2015**

We approve the trial to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study, any SAE occurring in the course of the study.

Chairman **Member Secretary**

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 600047

BOTANICAL CERTIFICATE

Certified that the following plant drugs used in the Siddha formulation **"Venpoosani lekiyam"** (Internal) for **Venneer Noi** taken up for Post Graduation Dissertation studies by **Dr.Vallipuram Anavarathan**, M.D.(S), II year, Department of Sirappu Maruthuvam, 2016, are identified through Visual inspection, Experience, Education & Training, Organoleptic characters, Morphology, Micromorphology and Taxonomical methods as

Benincasa hispida (Thunb.) Cogn. (Cucurbitaceae), Fruit
Pandanus tectorius Soland. Ex Parkinson (Pandanaceae), Stilt root
Cocos nucifera Linn. (Arecaceae), Fresh flowers with spathe
Citrus limon (Linn.) Burm. f. (Rutaceae), Fruit
Saccharum officinarum Linn. (Poaceae), Crystal sugar.
Cuminum cyminum Linn. (Apiaceae), Fruit
Coriandrum sativum Linn. (Apiaceae), Fruit
Saussurea lappa C.B.Clarke (Asteraceae), Root
Piper nigrum Linn. (Piperaceae), Fruit
Quercus infectoria Oliv. (Fagaceaae), Gall
Elettaria cardamomum Maton (Zingiberaceae), Fruit
Myristica fragrans Houtt. (Myristicaceae), Seed
Myristica fragrans Houtt. (Myristicaceae), Aril
Glycyrrhiza glabra Linn. (Fabaceae), Root
Taxus baccata Linn. (Taxaceae), Dried Leaves

MEDICINAL BOTANY * CHENNAI 600 047 * National Institute of Siddha

Certificate No: NISMB2362016A

Date: 19-7-2016

Authorized Signatory
Dr. D. ARAVIND, M.D.(s),M.Sc.,
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NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 600047

BOTANICAL CERTIFICATE

Certified that the following plant drugs used in the Siddha formulation "**Ulunthu thylam**" (External) for **Venneer Noi** taken up for Post Graduation Dissertation studies by **Dr.Vallipuram Anavarathan**, M.D.(S), II year, Department of Sirappu Maruthuvam, 2016, are identified through Visual inspection, Experience, Education & Training, Organoleptic characters, Morphology, Micromorphology and Taxonomical methods as

Vigna mungo L. (Hepper.) (Fabaceae), Seeds
Sesamum indicum Linn. (Pedaliaceae), Seed oil
Mucuna prurita Hook. (Fabaceae), Seed
Anethum graveolens Linn. (Apiaceae), Fruit
Alpinia galanga Willd. (Zingiberaceae), Rhizome
Zingiber officinale Rosc. (Zingiberaceae), Dried rhizome.
Piper nigrum Linn. (Piperaceae), Fruit
Piper longum Linn. (Piperaceae), Fruit
Wrightia tinctoria (Rottler.) R.Br. (Apocynaceae), Stem bark
Glycyrrhiza glabra Linn. (Fabaceae), Root
Acorus calamus Linn. (Araceae), Rhizome

MEDICINAL BOTANY ★ CHENNAI 600 047 ★ National Institute of Siddha

Certificate No: NISMB2362016B

Date: 19-7-2016

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25.05.2016

CERTIFICATE

Certified that the samples submitted for identification by Dr. V. Anavarathan, II year MD Student, Department of Sirappu Maruthuvam, National Institute of Siddha, Chennai-600 047 is identified as Inthuppu – Sodium chloride (Impure).

(R. Shakila)
Research Officer (Chemistry)

(Dr. P. Sathiyarajeswaran)
Assistant Director (Scientist 2) I/c

सहायक निदेशक/Assistant Director
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"AN OPEN CLINICAL TRIAL OF POLY HERBAL SIDDHA DRUGS "*VENPOOSANI LEGIYAM*" (INTERNAL MEDICINE) AND "*ULUNTHU THYLAM*" (EXTERNAL MEDICINE) IN THE TREATMENT OF *VEN NEER NOI* (DHAT SYNDROME) WITH AND WITHOUT PSYCHO-EDUCATION THERAPY".

The dissertation Submitted by

Dr. VALLIPURAM ANAVARATHAN,

P.G.Scholar

Under the Guidance of

Dr. N.J. Muthukumar M.D(S),

Head of the Department

Department of Sirappu Maruthuvam.

Dissertation submitted to

THE TAMILNADU DR. MGR MEDICAL UNIVERSITY,

CHENNAI-32

In partial fulfilment of the requirements

For the award of the degree of

DOCTOR OF MEDICINE (SIDDHA)

BRANCH III - SIRAPPU MARUTHUVAM

2014 – 2017